
SAFETY DATA SHEET

1. Section 1. Identification

1.1. Product Identifier

Trade name or designation of mixture:

Lifetech™ ECR8204F

Other means of identification:

None.

1.2. Recommended use:

Ion Exchange, Adsorbent, and/or Catalyst

Recommended restrictions:

None known.

1.3. Manufacturer/Importer/Supplier/Distributor Information

Supplier:

Purolite
150 Monument Road
Bala Cynwyd, PA 19004 USA
Tel:+1 610 668 9090
Fax:+1 610 668 8139

Manufacturer:

Purolite S.R.L.
Str.Aleea Uzinei nr.11,
505700 Victoria,
Judetul Brasov,
Romania
Tel:+40 2682 43004
Fax:+40 2682 43002

Purolite
150 Monument Road
Bala Cynwyd, PA 19004 USA

Tel:+1 610 668 9090
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Purolite (China) Co. Limited
Qianlong Economic Development Zone,
Qianyuan Town, Deqing County,
Huzhou City, Zhejiang, China 313216
Tel:+86 572 8422908
Fax:+86 572 8425345

Contact Person:

Ken Shaner

Email:

msds@purolite.com

1.4. Emergency Telephone Number:

+1 866 387 7344
+1 760 602 8703

2. Section 2. Hazard(s) identification

2.1 Classification of the substance or mixture

2.1.1 Hazard summary

Physical hazards	Not classified.
Health hazards	Not classified.
OSHA defined hazards	Not classified.
2.2 Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statements	The mixture does not meet the criteria for classification.
Precautionary Statements	
Prevention	Observe good industrial hygiene practices. Use personal protective equipment as required.
Response	Wash hands after handling. Get medical advice/attention if you feel unwell.
Storage	Store away from incompatible materials.
Disposal	Dispose of contents/container in accordance with local/regional/national /international regulations.
2.3 Hazard(s) not otherwise classified (HNOC)	None known.

3. Section 3. Composition/information on ingredients

3.1 Substance Not applicable.

3.2 Mixture

General Information

Chemical name	%	CAS No.	Notes
Crosslinked copolymer of methacrylate containing oxirane groups	35 - 45	31743-77-8	-
Classification:	DSD:	-	
	CLP:	-	
Water	55 - 65	7732-18-5	-
Classification:	DSD:	-	
	CLP:	-	

Composition comments: All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. Section 4. First aid measures

4.1 Description of first aid measures

4.1.1 Inhalation

-Move into fresh air and keep at rest. Get medical attention if any discomfort continues.

4.1.2 Skin contact

-Wash off immediately with soap and plenty of water. If irritation persists get medical attention.

4.1.3 Eye contact

-Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If eye irritation persists, get medical advice/attention.

4.1.4 Ingestion

-Rinse mouth thoroughly. Never give liquid to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention if any discomfort continues.

4.2 Most important symptoms and effects, both acute and delayed

-Eye contact: Contact may cause irritation with redness, tearing, pain, and/or blurred vision.

4.3 Indication of any immediate medical attention and special treatment

-Treat symptomatically

4.4 General information

-If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Section 5. Fire-fighting measures

5.1 Suitable extinguishing media

-Extinguishing with foam, carbon dioxide, dry powder or water fog.

5.2 Unsuitable extinguishing media

-None known.

5.3 Special hazards arising from the substance or mixture

-By heating and fire, harmful vapors/gases may be formed.

5.4 Special protective equipment for fire fighters

-Wear self-contained breathing apparatus and protective clothing.

5.5 Fire fighting equipment/instructions

-In the event of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Wear self-contained breathing apparatus and protective clothing.

5.6 Specific methods

-Use standard firefighting procedures and consider the hazards of other involved materials.

6. Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

-Keep unnecessary personnel away. Avoid contact with skin and eyes. For personal protection, see section 8 of the SDS.

6.2 Methods and materials for containment and cleaning up

-Avoid the generation of dusts during clean-up.

-Large Spills: Dike the spilled material, where this is possible. Sweep or shovel up material and place in a clearly labeled container for waste. For waste disposal, see Section 13 of the SDS.

-Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

-Never return spills to original containers for re-use.

6.3 Environmental precautions

-Prevent further leakage or spillage if safe to do so. Cover with plastic sheet to prevent spreading. Do not allow to enter drains, sewers or watercourses.

7. Section 7. Handling and storage

7.1 Precautions for safe handling

-Use with adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Observe good industrial hygiene practices. Wash thoroughly after handling. Avoid release to the environment.

7.2 Conditions for safe storage, including any incompatibilities

-Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials (See Section 10).

8. Section 8. Exposure controls/personal protection

8.1 Occupational exposure limits

-No exposure limits noted for ingredient(s).

8.2 Biological limit values

-No biological exposure limits noted for the ingredient(s).

8.3 Exposure guidelines

-This material does not have established exposure limits.

8.4 Appropriate engineering controls

-Provide adequate ventilation.

8.5 Individual protection measures, such as personal protective equipment

-Eye/face protection

-If contact is likely, safety glasses with side shields are recommended.

-Skin protection

-Hand protection

-Protective gloves should be worn to prevent skin contact.

Breakthrough time:

SPECIFIC RECOMMENDATIONS. > 10 minutes.

-Suitable gloves can be recommended by the glove supplier.

-Other

-Wear appropriate clothing to prevent repeated or prolonged skin contact.

-Respiratory protection

-No personal respiratory protective equipment is normally required.

-Thermal hazards

-None known.

-General hygiene considerations

-Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice. Always observe good personal hygiene measures, such as washing after handling the material and before eating,

drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Section 9. Physical and chemical properties

9.1 Appearance: Beads

Physical state: Solid

Form: Bead

Color: White, off-white, opaque

Odor: Odorless

Odor threshold: Not available.

pH: Neutral

Melting point/freezing point: Not available.

Initial boiling point, and boiling range: Not available.

Flash point: Not available.

Evaporation rate: Not available.

Flammability (solid,gas): Not available.

Upper/lower flammability or explosive limits

-Flammability limit-lower (%): Not available.

-Flammability limit-upper (%): Not available.

Vapor pressure: Like water

Vapor density: Not applicable.

Relative density: 1.11

Solubility(ies)

-Solubility (water): Insoluble in water and organic solvents

Partition coefficient n-octanol/water: No data available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: Not available.

10. Section 10. Stability and reactivity

10.1 Reactivity

-The product is stable and non reactive under normal conditions of use, storage and transport.

10.2 Chemical Stability

-Material is stable under normal conditions.

10.3 Possibility of hazardous reactions

-No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

-Heat, sparks, flames elevated temperatures.

10.5 Incompatible materials

-Strong oxidising agents. Nitric acid.

10.6 Hazardous decomposition products

-Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Section 11. Toxicological information

11.1 Information on likely routes of exposure:

-Inhalation

-Inhalation Under normal conditions of intended use, this material is not expected to be an inhalation hazard. Inhalation of dusts may cause respiratory irritation.

-Skin contact

-May cause mild skin irritation.

-Eye contact

-May cause eye irritation on direct contact.

-Ingestion

-May cause discomfort if swallowed.

-Symptoms related to the physical, chemical and toxicological characteristics

-Irritation of eyes and mucous membranes. Irritation of nose and throat.

11.2 Information on toxicological effects

Acute toxicity

-May cause discomfort if swallowed.

Skin corrosion/irritation

-Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation

-Direct contact with eyes and mucous membranes. Irritation of nose and throat.

Respiratory or skin sensitization

-Respiratory sensitization

-Not classified.

-Skin sensitization

-Not classified.

Germ cell mutagenicity

-Not classified.

Carcinogenicity

-This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Not classified.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

-Not listed.

Reproductive toxicity

-Not classified.

Specific target organ toxicity - single exposure

-Inhalation of dust may cause respiratory irritation.

Specific target organ toxicity - repeated exposure

-Not classified.

Aspiration hazard

-Not classified.

Chronic effects

-Chronic effects are not expected when this product is used as intended.

Further information

-No other specific acute or chronic health impact noted.

12. Section 12. Ecological information

12.1 Toxicity

-No test data available for the product.

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 Mobility in general

-No data available.

12.6 Other adverse effects

-The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13. Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal instructions

-Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose of in accordance with local regulations.

Hazardous waste code

-Not regulated.

Waste from residues / unused products

-Dispose of in accordance with local regulations.

Contaminated packaging

-Empty containers should be taken to an approved waste handling site for recycling or disposal. No special precautions.

14. Section 14. Transport information

14.1 DOT

-Not regulated as dangerous goods.

14.2 IATA

-Not regulated as dangerous goods.

14.3 IMDG

-Not regulated as dangerous goods.

14.4 Transport in Bulk according to AnnexII of MARPOL 73/78 and the IBC Code

-Not applicable.

15. Section 15: Regulatory information

15.1 US federal regulations

-This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

-All components are on the U.S. EPA TSCA Inventory List.

-CERCLA/SARA Hazardous Substances - Not applicable.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

-Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

-Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

-Not listed.

15.2 Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

-Immediate Hazard - No

-Delayed Hazard - No

-Fire Hazard - No

-Pressure Hazard - No

-Reactivity Hazard - No

SARA 302 Extremely hazardous substance

-Not listed.

SARA 311/312 Hazardous chemical

-No

SARA 313 (TRI reporting)

-Not regulated.

15.3 Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

-Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

-Not regulated.

Safe Drinking Water Act (SDWA)

-Not regulated.

15.4 US state regulations

-This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US. Massachusetts RTK - Substance List

-Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

-Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

-Not listed.

US. Rhode Island RTK

-Not regulated.

US. California Proposition 65

-California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

5.5 International Inventories

Country(s) or region	Inventory name	Inventory name	On inventory (yes/no)*
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Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippine	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

15.6 Other International Regulations

REACH Registration Number:

This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of REACH.

Canadian regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR).

WHMIS status: Non-controlled

16. Section 16. Other information, including date of preparation or last revision

HMIS:

Health: 1

Flammability: 1

Physical Hazard: 0



NFPA:

Health: 1

Flammability: 1

Reactivity: 0



List of abbreviations:

References:

ACGIH

EPA: AQUIRE database

NLM: Hazardous Substances Data Base

US. IARC Monographs on Occupational Exposures to Chemical Agents

HSDB® - Hazardous Substances Data Bank

IARC Monographs. Overall Evaluation of Carcinogenicity

National Toxicology Program (NTP) Report on Carcinogens

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

Further information:

-This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of REACH.

Disclaimer:

-The information provided in this safety data sheet is based on current knowledge about the product and current legal requirements and standards. It relates specifically to health, safety and environmental requirements and standards, may not identify all hazards associated with the product or its uses or misuses, does not signify any warranty with regard to the properties of the product, and only applies when the product is used for the purposes indicated in section 1. This product is not sold as suitable for other purposes and such other usage may cause risks not mentioned in this safety data sheet.

Issue date: June 1, 2015

Revision date: June 1, 2015

SAFETY DATA SHEET

1. Section 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier:

Trade name or designation of mixture: Lifetech™ ECR8309F

EC Number: Not applicable.

Registration Number: This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of REACH.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Ion Exchange, Adsorbent, and/or Catalyst

Uses advised against: None Known.

1.3. Details of the supplier of the safety data sheet

Supplier: Purolite Ltd.
Llantrisant Business Park,
Llantrisant, Wales, UK CF72 8LF
Tel:+44 1443 229334
Fax:+44 1443 227073

Manufacturer: Purolite S.R.L. Purolite
Str.Aleea Uzinei nr.11, 150 Monument Road
505700 Victoria, Bala Cynwyd, PA 19004 USA
Judetul Brasov, Romania
Tel:+40 2682 43004 Tel:+1 610 668 9090
Fax:+40 2682 43002 Fax:+1 610 668 8139

Purolite (China) Co. Limited
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Qianyuan Town, Deqing County,
Huzhou City, Zhejiang, China 313216

Tel:+86 572 8422908
Fax:+86 572 8425345

Contact Person: Ken Shaner

Email: msds@purolite.com

1.4. Emergency Telephone Number: +1 866 387 7344
+1 760 602 8703

2. Section 2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC as amended: This preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

2.1.1 Classification according to Regulation (EC) No 1272/2008 as amended

Hazard summary

Physical hazards Not classified for physical hazards.

Health hazards Not classified for health hazards.

Environmental hazards Not classified for hazards of the environment.

Specific hazards Direct contact with eyes may cause temporary irritation.

Main symptoms Under normal conditions of intended use, this material does not pose a risk to health.

2.2 Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard statements The mixture does not meet the criteria for classification.

Precautionary Statements

Prevention Use personal protective equipment as required.

Response Get medical advice/attention if you feel unwell.

Storage Store away from incompatible materials.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information None.

2.3 Other hazards

Not assigned.

3. Section 3. Composition/information on ingredients:

3.1 Substance Not applicable.

3.2 Mixture

General Information

3.2.1 Not applicable.

3.2.2 Chemical name	%	CAS No. / EC No.	REACH Registration No.	Index No.	Notes
Crosslinked copolymer of methacrylate containing amino groups	40 - 47	116010-49-2	-	-	-
Classification:	DSD:	-			
	CLP:	-			

Water 53 - 7732-18-5 - - -
60 231-791-2

Classification: **DSD:** -
CLP: -

DSD: Directive 67/548/EEC.

CLP: Regulation No. 1272/2008.

Composition comments

The full text for all R- and H-phrases is displayed in section 16. All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. Section 4. First aid measures

General Information

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1 Description of first aid measures

4.1.1 Inhalation

-Move into fresh air and keep at rest. Get medical attention if any discomfort continues.

4.1.2 Skin contact

-Wash off immediately with soap and plenty of water. If irritation persists get medical attention.

4.1.3 Eye contact

-Flush thoroughly with water for at least 15 minutes. Get medical attention if irritation develops and persists.

4.1.4 Ingestion

-Rinse mouth thoroughly. Never give liquid to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention if any discomfort continues.

4.2 Most important symptoms and effects, both acute and delayed

-Under normal conditions of intended use, this material does not pose a risk to health.

4.3 Indication of any immediate medical attention and special treatment

-Treat symptomatically

5. Section 5. Fire-fighting measures

General fire hazards

-The product is not flammable.

5.1 Extinguishing media

-Suitable extinguishing media

-Extinguishing with foam, carbon dioxide, dry powder or water fog.

-Unsuitable extinguishing media

-None known.

5.2 Special hazards arising from the substance or mixture

-By heating and fire, harmful vapors/gases may be formed.

5.3 Advice for fire fighters

-Special protective equipment for fire fighters

-Wear self-contained breathing apparatus and protective clothing.

-Special fire fighting procedures

-In the event of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

6. Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 -For non-emergency personnel

-Avoid contact with skin and eyes. For personal protection, see section 8 of the SDS.

6.1.2 -For emergency responders

-Keep unnecessary personnel away. Wear protective clothing as described in Section 8 of this safety data sheet.

6.2 Environmental precautions

-Prevent further leakage or spillage if safe to do so. Cover with plastic sheet to prevent spreading. Do not allow to enter drains, sewers or watercourses.

6.3 Methods and material for containment and cleaning up

-Avoid the generation of dusts during clean-up. Sweep up or vacuum up spillage and collect in suitable container for disposal. Collect and dispose of spillage as indicated in section 13 of the SDS.

6.4 Reference to other sections

-For personal protection, see section 8 of the SDS. For waste disposal, see Section 13 of the SDS.

7. Section 7. Handling and storage

7.1 Precautions for safe handling

-Use with adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Observe good industrial hygiene practices.

7.2 Precautions for safe storage

-Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3 Specific end use(s)

-Ion exchange, adsorbent or catalyst

8. Section 8. Exposure controls/personal protection

8.1 Control parameters

8.1.1 -Occupational exposure limits

-No exposure limits noted for ingredient(s).

8.1.2 Recommended monitoring procedures

-Follow standard monitoring procedures.

8.1.4 DNEL

-Not available.

PNEC

-Not available.

8.2 Exposure controls

8.2.1 -Appropriate engineering controls

-Provide adequate ventilation.

8.2.2 -Individual protection measures, such as personal protective equipment

-General information

-Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

-Eye/face protection

-If contact is likely, safety glasses with side shields is recommended.

-Skin protection

-Hand protection

-Protective gloves should be worn to prevent skin contact. Suitable gloves can be recommended by the glove supplier.

-Other

-Wear appropriate clothing to prevent repeated or prolonged skin contact.

-Respiratory protection

-No personal respiratory protective equipment is normally required.

-Thermal hazards

-None known.

-Hygiene measures

-Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

8.2.3 Environmental exposure controls

-Environmental manager must be informed of all major spillages.

9. Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Beads

Physical state: Solid

Form: Bead

Colour: White, off-white, opaque

Odour: Odourless

Odour threshold: Not available.

pH: Neutral

Melting point/freezing point: Not available.

Boiling point, initial boiling point, and boiling range: Not available.

Flash point: Not applicable.

Auto-ignition temperature: Not applicable.
Flammability (solid,gas): Not available.
Flammability limit-lower (%): Not available.
Flammability limit-upper (%): Not available.
Oxidising properties: Not applicable.
Explosive properties: Not applicable.
Explosive limit: Not applicable.
Vapour pressure: Like water
Vapour density: Not applicable.
Evaporation rate: Not applicable.
Relative density: 1.11
Solubility (water): Insoluble in water and organic solvents
Partition coefficient n-octanol/water: No data available.
Decomposition temperature: Not available.
Viscosity: Not available.
Percent volatile: Not available.

9.2 Other Information

-No relevant additional information available.

10. Section 10. Stability and reactivity

10.1 Reactivity

-The product is stable and non reactive under normal conditions of use, storage and transport.

10.2 Chemical Stability

-Material is stable under normal conditions.

10.3 Possibility of hazardous reactions

-No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

-Heat, sparks, flames elevated temperatures.

10.5 Incompatible materials

-Strong oxidising agents. Nitric acid.

10.6 Hazardous decomposition products

-Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Section 11. Toxicological information

General Information

-Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure:

-Ingestion

-May cause discomfort if swallowed.

-Inhalation

-Inhalation of dusts may cause respiratory irritation.

-Skin contact

-May cause mild skin irritation.

-Eye contact

-May cause eye irritation on direct contact.

-Symptoms

-Irritation of eyes and mucous membranes. Irritation of nose and throat.

11.1 Information on toxicological effects

11.1.1 Not applicable.

11.1.2 Mixture

Acute toxicity

-May cause discomfort if swallowed.

Skin corrosion/irritation

-Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation

-Direct contact with eyes and mucous membranes. Irritation of nose and throat.

Respiratory sensitization

-Not classified.

Skin sensitization

-Not classified.

Germ cell mutagenicity

-Not classified.

Carcinogenicity

-Not classified.

Reproductive toxicity

-Not classified.

Specific target organ toxicity - single exposure

-Inhalation of dust may cause respiratory irritation.

Specific target organ toxicity - repeated exposure

-Not classified.

Aspiration hazard

-Not classified.

Mixture versus substance information

-Not available.

Other information

-Not available.

12. Section 12. Ecological information

12.1 Toxicity

-No toxicity data noted for the ingredient(s)

12.2 Persistence and degradability

-No data available.

12.3 Bioaccumulative potential

-No data available.

Mobility

-No data available.

Environmental fate - Partition coefficient

-No data available.

12.4 Mobility in soil

-No data available.

12.5 Results of PBT and vPvB assessment

-Not a PBT or vPvB substance or mixture.

12.6 Other adverse effects

-The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13. Section 13. Disposal considerations

13.1 Waste treatment methods

Residual waste

-Dispose of in accordance with local regulations.

Contaminated packaging

-Empty containers should be taken to an approved waste handling site for recycling or disposal.

EU waste code

-Waste codes should be assigned by the user based on the application for which the product was used.

Disposal methods/information

-Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/containers in accordance with local/regional/national/international regulations.

14. Section 14. Transport information

14.1 ADR

-The product is not covered by international regulation on the transport of dangerous goods.

14.2 RID

-The product is not covered by international regulation on the transport of dangerous goods.

14.3 ADN

-The product is not covered by international regulation on the transport of dangerous goods.

14.4 IATA

-The product is not covered by international regulation on the transport of dangerous goods.

14.5 IMDG

-The product is not covered by international regulation on the transport of dangerous goods.

14.6 Transport in Bulk according to AnnexII of MARPOL 73/78 and the IBC Code

-No information available.

15. Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

EU Regulations:

-Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I:

-Not listed.

-Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II:

-Not listed.

-Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I:

- Not listed.
- Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1:**
 - Not listed.
- Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2:**
 - Not listed.
- Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3:**
 - Not listed.
- Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V:**
 - Not listed.
- Directive 96/61/EC concerning integrated pollution prevention and control (IPPC): Article 15, European Pollution Emission Registry (EPER):**
 - Not listed.
- Regulation (EC) No. 1907/2006, REACH Article 59(1). Candidate List:**
 - Not listed.

Other regulations

-This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. The product does not need to be labelled in accordance with EC directives or respective national laws.

National regulations

-Follow national regulation for work with chemical agents.

15.2 Chemical safety assessment

-No Chemical Safety Assessment has been carried out.

16. Section 16. Other information:

List of abbreviations:

- DNEL:** Derived No-Effect Level.
- PNEC:** Predicted No-Effect Concentration.
- PBT:** Persistent, bioaccumulative and toxic.
- vPvB:** Very Persistent and very Bioaccumulative.

References:

-Not available.

Information on evaluation method leading to the classification of mixture:

-The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements or R-phrases and H-phrases under Sections 2 to 15:

-None.

Training information:

-Follow training instructions when handling this material.

Further information:

-This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of

REACH.

Disclaimer:

-The information provided in this safety data sheet is based on current knowledge about the product and current legal requirements and standards. It relates specifically to health, safety and environmental requirements and standards, may not identify all hazards associated with the product or its uses or misuses, does not signify any warranty with regard to the properties of the product, and only applies when the product is used for the purposes indicated in section 1. This product is not sold as suitable for other purposes and such other usage may cause risks not mentioned in this safety data sheet.

Issue date: November 3, 2014

Revision date: November 3, 2014

SAFETY DATA SHEET

1. Section 1. Identification

1.1. Product Identifier

Trade name or designation of mixture:

Lifetech™ ECR8285

Other means of identification:

None.

1.2. Recommended use:

Ion Exchange, Adsorbent, and/or Catalyst

Recommended restrictions:

None known.

1.3. Manufacturer/Importer/Supplier/Distributor Information

Supplier:

Purolite
150 Monument Road
Bala Cynwyd, PA 19004 USA
Tel:+1 610 668 9090
Fax:+1 610 668 8139

Manufacturer:

Purolite S.R.L.
Str.Aleea Uzinei nr.11,
505700 Victoria,
Judetul Brasov,
Romania

Purolite
150 Monument Road
Bala Cynwyd, PA 19004 USA

Tel:+40 2682 43004
Fax:+40 2682 43002

Tel:+1 610 668 9090
Fax:+1 610 668 8139

Purolite (China) Co. Limited
Qianlong Economic Development Zone,
Qianyuan Town, Deqing County,
Huzhou City, Zhejiang, China 313216

Tel:+86 572 8422908
Fax:+86 572 8425345

Contact Person:

SDS Coordinator

Email:

msds@purolite.com

1.4. Emergency Telephone Number:

+1 866 387 7344
+1 760 602 8703

2. Section 2. Hazard(s) identification

2.1 Classification of the substance or mixture

2.1.1 Hazard summary

Physical hazards	Not classified.
Health hazards	Not classified.
OSHA defined hazards	Not classified.
2.2 Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statements	The mixture does not meet the criteria for classification.
Precautionary Statements	
Prevention	Observe good industrial hygiene practices. Use personal protective equipment as required.
Response	Wash hands after handling. Get medical advice/attention if you feel unwell.
Storage	Store away from incompatible materials.
Disposal	Dispose of contents/container in accordance with local/regional/national /international regulations.
2.3 Hazard(s) not otherwise classified (HNOC)	None known.

3. Section 3. Composition/information on ingredients

3.1 Substance Not applicable.

3.2 Mixture

General Information

Chemical name	%	CAS No.	Notes
Crosslinked copolymer of methacrylate containing oxirane groups	35 - 45	31743-77-8	-
Classification:	DSD:	-	
	CLP:	-	
Water	55 - 65	7732-18-5	-
Classification:	DSD:	-	
	CLP:	-	

Composition comments: All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. Section 4. First aid measures

4.1 Description of first aid measures

4.1.1 Inhalation

-Move into fresh air and keep at rest. Get medical attention if any discomfort continues.

4.1.2 Skin contact

-Wash off immediately with soap and plenty of water. If irritation persists get medical attention.

4.1.3 Eye contact

-Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If eye irritation persists, get medical advice/attention.

4.1.4 Ingestion

-Rinse mouth thoroughly. Never give liquid to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention if any discomfort continues.

4.2 Most important symptoms and effects, both acute and delayed

-Eye contact: Contact may cause irritation with redness, tearing, pain, and/or blurred vision.

4.3 Indication of any immediate medical attention and special treatment

-Treat symptomatically

4.4 General information

-If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Section 5. Fire-fighting measures

5.1 Suitable extinguishing media

-Extinguishing with foam, carbon dioxide, dry powder or water fog.

5.2 Unsuitable extinguishing media

-None known.

5.3 Special hazards arising from the substance or mixture

-By heating and fire, harmful vapors/gases may be formed.

5.4 Special protective equipment for fire fighters

-Wear self-contained breathing apparatus and protective clothing.

5.5 Fire fighting equipment/instructions

-In the event of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Wear self-contained breathing apparatus and protective clothing.

5.6 Specific methods

-Use standard firefighting procedures and consider the hazards of other involved materials.

6. Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

-Keep unnecessary personnel away. Avoid contact with skin and eyes. For personal protection, see section 8 of the SDS.

6.2 Methods and materials for containment and cleaning up

-Avoid the generation of dusts during clean-up.

-Large Spills: Dike the spilled material, where this is possible. Sweep or shovel up material and place in a clearly labeled container for waste. For waste disposal, see Section 13 of the SDS.

-Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

-Never return spills to original containers for re-use.

6.3 Environmental precautions

-Prevent further leakage or spillage if safe to do so. Cover with plastic sheet to prevent spreading. Do not allow to enter drains, sewers or watercourses.

7. Section 7. Handling and storage

7.1 Precautions for safe handling

-Use with adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Observe good industrial hygiene practices. Wash thoroughly after handling. Avoid release to the environment.

7.2 Conditions for safe storage, including any incompatibilities

-Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials (See Section 10).

8. Section 8. Exposure controls/personal protection

8.1 Occupational exposure limits

-No exposure limits noted for ingredient(s).

8.2 Biological limit values

-No biological exposure limits noted for the ingredient(s).

8.3 Exposure guidelines

-This material does not have established exposure limits.

8.4 Appropriate engineering controls

-Provide adequate ventilation.

8.5 Individual protection measures, such as personal protective equipment

-Eye/face protection

-If contact is likely, safety glasses with side shields are recommended.

-Skin protection

-Hand protection

-Protective gloves should be worn to prevent skin contact.

Breakthrough time:

SPECIFIC RECOMMENDATIONS. > 10 minutes.

-Suitable gloves can be recommended by the glove supplier.

-Other

-Wear appropriate clothing to prevent repeated or prolonged skin contact.

-Respiratory protection

-No personal respiratory protective equipment is normally required.

-Thermal hazards

-None known.

-General hygiene considerations

-Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice. Always observe good personal hygiene measures, such as washing after handling the material and before eating,

drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Section 9. Physical and chemical properties

9.1 Appearance: Beads

Physical state: Solid

Form: Bead

Color: White, off-white, opaque

Odor: Odorless

Odor threshold: Not available.

pH: Neutral

Melting point/freezing point: Not available.

Initial boiling point, and boiling range: Not available.

Flash point: Not available. **Evaporation**

rate: Not available. **Flammability**

(solid,gas): Not available.

Upper/lower flammability or explosive limits

-Flammability limit-lower (%): Not available.

-Flammability limit-upper (%): Not available.

Vapor pressure: Like water

Vapor density: Not applicable.

Relative density: 1.11

Solubility(ies)

-Solubility (water): Insoluble in water and organic solvents

Partition coefficient n-octanol/water: No data available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: Not available.

10. Section 10. Stability and reactivity

10.1 Reactivity

-The product is stable and non reactive under normal conditions of use, storage and transport.

10.2 Chemical Stability

-Material is stable under normal conditions.

10.3 Possibility of hazardous reactions

-No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

-Heat, sparks, flames elevated temperatures.

10.5 Incompatible materials

-Strong oxidising agents. Nitric acid.

10.6 Hazardous decomposition products

-Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Section 11. Toxicological information

11.1 Information on likely routes of exposure:

-Inhalation

-Inhalation Under normal conditions of intended use, this material is not expected to be an inhalation hazard. Inhalation of dusts may cause respiratory irritation.

-Skin contact

-May cause mild skin irritation.

-Eye contact

-May cause eye irritation on direct contact.

-Ingestion

-May cause discomfort if swallowed.

-Symptoms related to the physical, chemical and toxicological characteristics

-Irritation of eyes and mucous membranes. Irritation of nose and throat.

11.2 Information on toxicological effects

Acute toxicity

-May cause discomfort if swallowed.

Skin corrosion/irritation

-Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation

-Direct contact with eyes and mucous membranes. Irritation of nose and throat.

Respiratory or skin sensitization

-Respiratory sensitization

-Not classified.

-Skin sensitization

-Not classified.

Germ cell mutagenicity

-Not classified.

Carcinogenicity

-This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Not classified.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

-Not listed.

Reproductive toxicity

-Not classified.

Specific target organ toxicity - single exposure

-Inhalation of dust may cause respiratory irritation.

Specific target organ toxicity - repeated exposure

-Not classified.

Aspiration hazard

-Not classified.

Chronic effects

-Chronic effects are not expected when this product is used as intended.

Further information

-No other specific acute or chronic health impact noted.

12. Section 12. Ecological information

12.1 Toxicity

-No test data available for the product.

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 Mobility in general

-No data available.

12.6 Other adverse effects

-The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13. Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal instructions

-Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose of in accordance with local regulations.

Hazardous waste code

-Not regulated.

Waste from residues / unused products

-Dispose of in accordance with local regulations.

Contaminated packaging

-Empty containers should be taken to an approved waste handling site for recycling or disposal. No special precautions.

14. Section 14. Transport information

14.1 DOT

-Not regulated as dangerous goods.

14.2 IATA

-Not regulated as dangerous goods.

14.3 IMDG

-Not regulated as dangerous goods.

14.4 Transport in Bulk according to AnnexII of MARPOL 73/78 and the IBC Code

-Not applicable.

15. Section 15: Regulatory information

15.1 US federal regulations

-This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

-All components are on the U.S. EPA TSCA Inventory List.

-CERCLA/SARA Hazardous Substances - Not applicable.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

-Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

-Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

-Not listed.

15.2 Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

-Immediate Hazard - No

-Delayed Hazard - No

-Fire Hazard - No

-Pressure Hazard - No

-Reactivity Hazard - No

SARA 302 Extremely hazardous substance

-Not listed.

SARA 311/312 Hazardous chemical

-No

SARA 313 (TRI reporting)

-Not regulated.

15.3 Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

-Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

-Not regulated.

Safe Drinking Water Act (SDWA)

-Not regulated.

15.4 US state regulations

-This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US. Massachusetts RTK - Substance List

-Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

-Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

-Not listed.

US. Rhode Island RTK

-Not regulated.

US. California Proposition 65

-California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

5.5 International Inventories

Country(s) or region	Inventory name	Inventory name	On inventory (yes/no)*
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Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippine	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

15.6 Other International Regulations

REACH Registration Number:

This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of REACH.

Canadian regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR).

WHMIS status: Non-controlled

16. Section 16. Other information, including date of preparation or last revision

HMIS:

Health: 1

Flammability: 1

Physical Hazard: 0



NFPA:

Health: 1

Flammability: 1

Reactivity: 0



List of abbreviations:

References:

ACGIH

EPA: AQUIRE database

NLM: Hazardous Substances Data Base

US. IARC Monographs on Occupational Exposures to Chemical Agents

HSDB® - Hazardous Substances Data Bank

IARC Monographs. Overall Evaluation of Carcinogenicity

National Toxicology Program (NTP) Report on Carcinogens

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

Further information:

-This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of REACH.

Disclaimer:

-The information provided in this safety data sheet is based on current knowledge about the product and current legal requirements and standards. It relates specifically to health, safety and environmental requirements and standards, may not identify all hazards associated with the product or its uses or misuses, does not signify any warranty with regard to the properties of the product, and only applies when the product is used for the purposes indicated in section 1. This product is not sold as suitable for other purposes and such other usage may cause risks not mentioned in this safety data sheet.

Issue date: June 1, 2015

Revision date: June 1, 2015

SAFETY DATA SHEET

1. Section 1. Identification

1.1. Product Identifier

Trade name or designation of mixture:

Lifetech™ ECR8806F

Other means of identification:

None.

1.2. Recommended use:

Ion Exchange, Adsorbent, and/or Catalyst

Recommended restrictions:

None known.

1.3. Manufacturer/Importer/Supplier/Distributor Information

Supplier:

Purolite
150 Monument Road
Bala Cynwyd, PA 19004 USA
Tel:+1 610 668 9090
Fax:+1 610 668 8139

Manufacturer:

Purolite S.R.L.
Str.Aleea Uzinei nr.11,
505700 Victoria,
Judetul Brasov,
Romania
Tel:+40 2682 43004
Fax:+40 2682 43002

Purolite
150 Monument Road
Bala Cynwyd, PA 19004 USA

Tel:+1 610 668 9090
Fax:+1 610 668 8139

Purolite (China) Co. Limited
Qianlong Economic Development Zone,
Qianyuan Town, Deqing County,
Huzhou City, Zhejiang, China 313216
Tel:+86 572 8422908
Fax:+86 572 8425345

Contact Person:

Ken Shaner

Email:

msds@purolite.com

1.4. Emergency Telephone Number:

+1 866 387 7344
+1 760 602 8703

2. Section 2. Hazard(s) identification

2.1 Classification of the substance or mixture

2.1.1 Hazard summary

Physical hazards	Not classified.
Health hazards	Not classified.
OSHA defined hazards	Not classified.
2.2 Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statements	The mixture does not meet the criteria for classification.
Precautionary Statements	
Prevention	Observe good industrial hygiene practices. Use personal protective equipment as required.
Response	Wash hands after handling. Get medical advice/attention if you feel unwell.
Storage	Store away from incompatible materials.
Disposal	Dispose of contents/container in accordance with local/regional/national /international regulations.
2.3 Hazard(s) not otherwise classified (HNOC)	None known.

3. Section 3. Composition/information on ingredients

3.1 Substance Not applicable.

3.2 Mixture

General Information

Chemical name	%	CAS No.	Notes
Crosslinked copolymer of methacrylate containing alkyl groups	35 - 45	116010-47-0	-
Classification:	DSD:	-	
	CLP:	-	
Water	55 - 65	7732-18-5	-
Classification:	DSD:	-	
	CLP:	-	

Composition comments: All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. Section 4. First aid measures

4.1 Description of first aid measures

4.1.1 Inhalation

-Move into fresh air and keep at rest. Get medical attention if any discomfort continues.

4.1.2 Skin contact

-Wash off immediately with soap and plenty of water. If irritation persists get medical attention.

4.1.3 Eye contact

-Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If eye irritation persists, get medical advice/attention.

4.1.4 Ingestion

-Rinse mouth thoroughly. Never give liquid to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention if any discomfort continues.

4.2 Most important symptoms and effects, both acute and delayed

-Eye contact: Contact may cause irritation with redness, tearing, pain, and/or blurred vision.

4.3 Indication of any immediate medical attention and special treatment

-Treat symptomatically

4.4 General information

-If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Section 5. Fire-fighting measures

5.1 Suitable extinguishing media

-Extinguishing with foam, carbon dioxide, dry powder or water fog.

5.2 Unsuitable extinguishing media

-None known.

5.3 Special hazards arising from the substance or mixture

-By heating and fire, harmful vapors/gases may be formed.

5.4 Special protective equipment for fire fighters

-Wear self-contained breathing apparatus and protective clothing.

5.5 Fire fighting equipment/instructions

-In the event of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Wear self-contained breathing apparatus and protective clothing.

5.6 Specific methods

-Use standard firefighting procedures and consider the hazards of other involved materials.

6. Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

-Keep unnecessary personnel away. Avoid contact with skin and eyes. For personal protection, see section 8 of the SDS.

6.2 Methods and materials for containment and cleaning up

-Avoid the generation of dusts during clean-up.

-Large Spills: Dike the spilled material, where this is possible. Sweep or shovel up material and place in a clearly labeled container for waste. For waste disposal, see Section 13 of the SDS.

-Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

-Never return spills to original containers for re-use.

6.3 Environmental precautions

-Prevent further leakage or spillage if safe to do so. Cover with plastic sheet to prevent spreading. Do not allow to enter drains, sewers or watercourses.

7. Section 7. Handling and storage

7.1 Precautions for safe handling

-Use with adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Observe good industrial hygiene practices. Wash thoroughly after handling. Avoid release to the environment.

7.2 Conditions for safe storage, including any incompatibilities

-Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials (See Section 10).

8. Section 8. Exposure controls/personal protection

8.1 Occupational exposure limits

-No exposure limits noted for ingredient(s).

8.2 Biological limit values

-No biological exposure limits noted for the ingredient(s).

8.3 Exposure guidelines

-This material does not have established exposure limits.

8.4 Appropriate engineering controls

-Provide adequate ventilation.

8.5 Individual protection measures, such as personal protective equipment

-Eye/face protection

-If contact is likely, safety glasses with side shields are recommended.

-Skin protection

-Hand protection

-Protective gloves should be worn to prevent skin contact.

Breakthrough time:

SPECIFIC RECOMMENDATIONS. > 10 minutes.

-Suitable gloves can be recommended by the glove supplier.

-Other

-Wear appropriate clothing to prevent repeated or prolonged skin contact.

-Respiratory protection

-No personal respiratory protective equipment is normally required.

-Thermal hazards

-None known.

-General hygiene considerations

-Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice. Always observe good personal hygiene measures, such as washing after handling the material and before eating,

drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Section 9. Physical and chemical properties

9.1 Appearance: Beads

Physical state: Solid

Form: Bead

Color: White opaque

Odor: Odorless

Odor threshold: Not available.

pH: Neutral.

Melting point/freezing point: Not available.

Initial boiling point, and boiling range: Not available.

Flash point: Not available.

Evaporation rate: Not available.

Flammability (solid,gas): Not available.

Upper/lower flammability or explosive limits

-Flammability limit-lower (%): Not available.

-Flammability limit-upper (%): Not available.

Vapor pressure: Like water

Vapor density: Not applicable.

Relative density: 1.1

Solubility(ies)

-Solubility (water): Insoluble in water and organic solvents

Partition coefficient n-octanol/water: No data available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: Not available.

10. Section 10. Stability and reactivity

10.1 Reactivity

-The product is stable and non reactive under normal conditions of use, storage and transport.

10.2 Chemical Stability

-Material is stable under normal conditions.

10.3 Possibility of hazardous reactions

-No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

-Heat, sparks, flames elevated temperatures.

10.5 Incompatible materials

-Strong oxidising agents. Nitric acid.

10.6 Hazardous decomposition products

-Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Section 11. Toxicological information

11.1 Information on likely routes of exposure:

-Inhalation

-Inhalation Under normal conditions of intended use, this material is not expected to be an inhalation hazard. Inhalation of dusts may cause respiratory irritation.

-Skin contact

-May cause mild skin irritation.

-Eye contact

-May cause eye irritation on direct contact.

-Ingestion

-May cause discomfort if swallowed.

-Symptoms related to the physical, chemical and toxicological characteristics

-Irritation of eyes and mucous membranes. Irritation of nose and throat.

11.2 Information on toxicological effects

Acute toxicity

-May cause discomfort if swallowed.

Skin corrosion/irritation

-Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation

-Direct contact with eyes and mucous membranes. Irritation of nose and throat.

Respiratory or skin sensitization

-Respiratory sensitization

-Not classified.

-Skin sensitization

-Not classified.

Germ cell mutagenicity

-Not classified.

Carcinogenicity

-This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Not classified.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

-Not listed.

Reproductive toxicity

-Not classified.

Specific target organ toxicity - single exposure

-Inhalation of dust may cause respiratory irritation.

Specific target organ toxicity - repeated exposure

-Not classified.

Aspiration hazard

-Not classified.

Chronic effects

-Chronic effects are not expected when this product is used as intended.

Further information

-No other specific acute or chronic health impact noted.

12. Section 12. Ecological information

12.1 Toxicity

-No test data available for the product.

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 Mobility in general

-No data available.

12.6 Other adverse effects

-The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13. Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal instructions

-Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose of in accordance with local regulations.

Hazardous waste code

-Not regulated.

Waste from residues / unused products

-Dispose of in accordance with local regulations.

Contaminated packaging

-Empty containers should be taken to an approved waste handling site for recycling or disposal. No special precautions.

14. Section 14. Transport information

14.1 DOT

-Not regulated as dangerous goods.

14.2 IATA

-Not regulated as dangerous goods.

14.3 IMDG

-Not regulated as dangerous goods.

14.4 Transport in Bulk according to AnnexII of MARPOL 73/78 and the IBC Code

-Not applicable.

15. Section 15: Regulatory information

15.1 US federal regulations

-This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

-All components are on the U.S. EPA TSCA Inventory List.

-CERCLA/SARA Hazardous Substances - Not applicable.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

-Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

-Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

-Not listed.

15.2 Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

-Immediate Hazard - No

-Delayed Hazard - No

-Fire Hazard - No

-Pressure Hazard - No

-Reactivity Hazard - No

SARA 302 Extremely hazardous substance

-Not listed.

SARA 311/312 Hazardous chemical

-No

SARA 313 (TRI reporting)

-Not regulated.

15.3 Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

-Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

-Not regulated.

Safe Drinking Water Act (SDWA)

-Not regulated.

15.4 US state regulations

-This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US. Massachusetts RTK - Substance List

-Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

-Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

-Not listed.

US. Rhode Island RTK

-Not regulated.

US. California Proposition 65

-California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

5.5 International Inventories

Country(s) or region	Inventory name	Inventory name	On inventory (yes/no)*
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Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippine	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

15.6 Other International Regulations

REACH Registration Number:

This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of REACH.

Canadian regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR).

WHMIS status: Non-controlled

16. Section 16. Other information, including date of preparation or last revision

HMIS:

Health: 1

Flammability: 1

Physical Hazard: 0



NFPA:

Health: 1

Flammability: 1

Reactivity: 0



List of abbreviations:

References:

ACGIH

EPA: AQUIRE database

NLM: Hazardous Substances Data Base

US. IARC Monographs on Occupational Exposures to Chemical Agents

HSDB® - Hazardous Substances Data Bank

IARC Monographs. Overall Evaluation of Carcinogenicity

National Toxicology Program (NTP) Report on Carcinogens

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

Further information:

-This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of REACH.

Disclaimer:

-The information provided in this safety data sheet is based on current knowledge about the product and current legal requirements and standards. It relates specifically to health, safety and environmental requirements and standards, may not identify all hazards associated with the product or its uses or misuses, does not signify any warranty with regard to the properties of the product, and only applies when the product is used for the purposes indicated in section 1. This product is not sold as suitable for other purposes and such other usage may cause risks not mentioned in this safety data sheet.

Issue date: June 1, 2015

Revision date: June 4, 2015

SAFETY DATA SHEET

1. Section 1. Identification

1.1. Product Identifier

Trade name or designation of mixture:

Lifetech[™] ECR1090M

Other means of identification:

None.

1.2. Recommended use:

Ion Exchange, Adsorbent, and/or Catalyst

Recommended restrictions:

None known.

1.3. Manufacturer/Importer/Supplier/Distributor Information

Supplier:

Purolite
150 Monument Road
Bala Cynwyd, PA 19004 USA
Tel:+1 610 668 9090
Fax:+1 610 668 8139

Manufacturer:

Purolite S.R.L.
Str.Aleea Uzinei nr.11,
505700 Victoria,
Judetul Brasov,
Romania
Tel:+40 2682 43004
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150 Monument Road
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Fax:+1 610 668 8139

Purolite (China) Co. Limited
Qianlong Economic Development Zone,
Qianyuan Town, Deqing County,
Huzhou City, Zhejiang, China 313216
Tel:+86 572 8422908
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Contact Person:

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1.4. Emergency Telephone Number:

+1 866 387 7344
+1 760 602 8703

2. Section 2. Hazard(s) identification

2.1 Classification of the substance or mixture

2.1.1 Hazard summary

Physical hazards	Not classified.
Health hazards	Not classified.
OSHA defined hazards	Not classified.
2.2 Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statements	The mixture does not meet the criteria for classification.
Precautionary Statements	
Prevention	Observe good industrial hygiene practices. Use personal protective equipment as required.
Response	Wash hands after handling. Get medical advice/attention if you feel unwell.
Storage	Store away from incompatible materials.
Disposal	Dispose of contents/container in accordance with local/regional/national /international regulations.
2.3 Hazard(s) not otherwise classified (HNOC)	None known.

3. Section 3. Composition/information on ingredients

3.1 Substance Not applicable.

3.2 Mixture

General Information

Chemical name	%	CAS No.	Notes
Benzene, diethenyl-, polymer with ethenylbenzene and ethenylethylbenzene	25 - 35	9052-95-3	-
Classification:	DSD:	-	
	CLP:	-	
Water	65 - 75	7732-18-5	-
Classification:	DSD:	-	
	CLP:	-	

Composition comments: All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. Section 4. First aid measures

4.1 Description of first aid measures

4.1.1 Inhalation

-Move into fresh air and keep at rest. Get medical attention if any discomfort continues.

4.1.2 Skin contact

-Wash off immediately with soap and plenty of water. If irritation persists get medical attention.

4.1.3 Eye contact

-Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If eye irritation persists, get medical advice/attention.

4.1.4 Ingestion

-Rinse mouth thoroughly. Never give liquid to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention if any discomfort continues.

4.2 Most important symptoms and effects, both acute and delayed

-Eye contact: Contact may cause irritation with redness, tearing, pain, and/or blurred vision.

4.3 Indication of any immediate medical attention and special treatment

-Treat symptomatically

4.4 General information

-If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Section 5. Fire-fighting measures

5.1 Suitable extinguishing media

-Extinguishing with foam, carbon dioxide, dry powder or water fog.

5.2 Unsuitable extinguishing media

-None known.

5.3 Special hazards arising from the substance or mixture

-By heating and fire, harmful vapors/gases may be formed.

5.4 Special protective equipment for fire fighters

-Wear self-contained breathing apparatus and protective clothing.

5.5 Fire fighting equipment/instructions

-In the event of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Wear self-contained breathing apparatus and protective clothing.

5.6 Specific methods

-Use standard firefighting procedures and consider the hazards of other involved materials.

6. Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

-Keep unnecessary personnel away. Avoid contact with skin and eyes. For personal protection, see section 8 of the SDS.

6.2 Methods and materials for containment and cleaning up

-Avoid the generation of dusts during clean-up.

-Large Spills: Dike the spilled material, where this is possible. Sweep or shovel up material and place in a clearly labeled container for waste. For waste disposal, see Section 13 of the SDS.

-Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

-Never return spills to original containers for re-use.

6.3 Environmental precautions

-Prevent further leakage or spillage if safe to do so. Cover with plastic sheet to prevent spreading. Do not allow to enter drains, sewers or watercourses.

7. Section 7. Handling and storage

7.1 Precautions for safe handling

-Use with adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Observe good industrial hygiene practices. Wash thoroughly after handling. Avoid release to the environment.

7.2 Conditions for safe storage, including any incompatibilities

-Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials (See Section 10).

8. Section 8. Exposure controls/personal protection

8.1 Occupational exposure limits

-No exposure limits noted for ingredient(s).

8.2 Biological limit values

-No biological exposure limits noted for the ingredient(s).

8.3 Exposure guidelines

-This material does not have established exposure limits.

8.4 Appropriate engineering controls

-Provide adequate ventilation.

8.5 Individual protection measures, such as personal protective equipment

-Eye/face protection

-If contact is likely, safety glasses with side shields are recommended.

-Skin protection

-Hand protection

-Protective gloves should be worn to prevent skin contact.

Breakthrough time:

SPECIFIC RECOMMENDATIONS. > 10 minutes.

-Suitable gloves can be recommended by the glove supplier.

-Other

-Wear appropriate clothing to prevent repeated or prolonged skin contact.

-Respiratory protection

-No personal respiratory protective equipment is normally required.

-Thermal hazards

-None known.

-General hygiene considerations

-Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice. Always observe good personal hygiene measures, such as washing after handling the material and before eating,

drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Section 9. Physical and chemical properties

9.1 Appearance: Beads

Physical state: Solid

Form: Bead

Color: Brown, light brown

Odor: Odorless.

Odor threshold: Not available.

pH: Neutral.

Melting point/freezing point: Not available.

Initial boiling point, and boiling range: Not available.

Flash point: Not available.

Evaporation rate: Not available.

Flammability (solid,gas): Not available.

Upper/lower flammability or explosive limits

-Flammability limit-lower (%): Not available.

-Flammability limit-upper (%): Not available.

Vapor pressure: Like water

Vapor density: Not applicable.

Relative density: 1.03 - 1.04

Solubility(ies)

-Solubility (water): Insoluble in water and organic solvents

Partition coefficient n-octanol/water: No data available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: Not available.

10. Section 10. Stability and reactivity

10.1 Reactivity

-The product is stable and non reactive under normal conditions of use, storage and transport.

10.2 Chemical Stability

-Material is stable under normal conditions.

10.3 Possibility of hazardous reactions

-No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

-Heat, sparks, flames elevated temperatures.

10.5 Incompatible materials

-Strong oxidising agents. Nitric acid.

10.6 Hazardous decomposition products

-Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Section 11. Toxicological information

11.1 Information on likely routes of exposure:

-Inhalation

-Inhalation Under normal conditions of intended use, this material is not expected to be an inhalation hazard. Inhalation of dusts may cause respiratory irritation.

-Skin contact

-May cause mild skin irritation.

-Eye contact

-May cause eye irritation on direct contact.

-Ingestion

-May cause discomfort if swallowed.

-Symptoms related to the physical, chemical and toxicological characteristics

-Irritation of eyes and mucous membranes. Irritation of nose and throat.

11.2 Information on toxicological effects

Acute toxicity

-May cause discomfort if swallowed.

Skin corrosion/irritation

-Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation

-Direct contact with eyes and mucous membranes. Irritation of nose and throat.

Respiratory or skin sensitization

-Respiratory sensitization

-Not classified.

-Skin sensitization

-Not classified.

Germ cell mutagenicity

-Not classified.

Carcinogenicity

-This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Not classified.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

-Not listed.

Reproductive toxicity

-Not classified.

Specific target organ toxicity - single exposure

-Inhalation of dust may cause respiratory irritation.

Specific target organ toxicity - repeated exposure

-Not classified.

Aspiration hazard

-Not classified.

Chronic effects

-Chronic effects are not expected when this product is used as intended.

Further information

-No other specific acute or chronic health impact noted.

12. Section 12. Ecological information

12.1 Toxicity

-No test data available for the product.

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 Mobility in general

-No data available.

12.6 Other adverse effects

-The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13. Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal instructions

-Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose of in accordance with local regulations.

Hazardous waste code

-Not regulated.

Waste from residues / unused products

-Dispose of in accordance with local regulations.

Contaminated packaging

-Empty containers should be taken to an approved waste handling site for recycling or disposal. No special precautions.

14. Section 14. Transport information

14.1 DOT

-Not regulated as dangerous goods.

14.2 IATA

-Not regulated as dangerous goods.

14.3 IMDG

-Not regulated as dangerous goods.

14.4 Transport in Bulk according to AnnexII of MARPOL 73/78 and the IBC Code

-Not applicable.

15. Section 15: Regulatory information

15.1 US federal regulations

-This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

-All components are on the U.S. EPA TSCA Inventory List.

-CERCLA/SARA Hazardous Substances - Not applicable.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

-Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

-Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

-Not listed.

15.2 Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

-Immediate Hazard - No

-Delayed Hazard - No

-Fire Hazard - No

-Pressure Hazard - No

-Reactivity Hazard - No

SARA 302 Extremely hazardous substance

-Not listed.

SARA 311/312 Hazardous chemical

-No

SARA 313 (TRI reporting)

-Not regulated.

15.3 Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

-Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

-Not regulated.

Safe Drinking Water Act (SDWA)

-Not regulated.

15.4 US state regulations

-This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US. Massachusetts RTK - Substance List

-Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

-Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

-Not listed.

US. Rhode Island RTK

-Not regulated.

US. California Proposition 65

-California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

5.5 International Inventories

Country(s) or region	Inventory name	Inventory name	On inventory (yes/no)*
----------------------	----------------	----------------	---------------------------

Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippine	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

15.6 Other International Regulations

REACH Registration Number:

This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of REACH.

Canadian regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR).

WHMIS status: Non-controlled

16. Section 16. Other information, including date of preparation or last revision

HMIS:

Health: 1

Flammability: 1

Physical Hazard: 0



NFPA:

Health: 1

Flammability: 1

Reactivity: 0



List of abbreviations:

References:

ACGIH

EPA: AQUIRE database

NLM: Hazardous Substances Data Base

US. IARC Monographs on Occupational Exposures to Chemical Agents

HSDB® - Hazardous Substances Data Bank

IARC Monographs. Overall Evaluation of Carcinogenicity

National Toxicology Program (NTP) Report on Carcinogens

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

Further information:

-This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of REACH.

Disclaimer:

-The information provided in this safety data sheet is based on current knowledge about the product and current legal requirements and standards. It relates specifically to health, safety and environmental requirements and standards, may not identify all hazards associated with the product or its uses or misuses, does not signify any warranty with regard to the properties of the product, and only applies when the product is used for the purposes indicated in section 1. This product is not sold as suitable for other purposes and such other usage may cause risks not mentioned in this safety data sheet.

Issue date: June 1, 2015

Revision date: June 4, 2015

SAFETY DATA SHEET

1. Section 1. Identification

1.1. Product Identifier

Trade name or designation of mixture:

Lifetech™ ECR1030M

Other means of identification:

None.

1.2. Recommended use:

Ion Exchange, Adsorbent, and/or Catalyst

Recommended restrictions:

None known.

1.3. Manufacturer/Importer/Supplier/Distributor Information

Supplier:

Purolite
150 Monument Road
Bala Cynwyd, PA 19004 USA
Tel:+1 610 668 9090
Fax:+1 610 668 8139

Manufacturer:

Purolite S.R.L.
Str.Aleea Uzinei nr.11,
505700 Victoria,
Judetul Brasov,
Romania
Tel:+40 2682 43004
Fax:+40 2682 43002

Purolite
150 Monument Road
Bala Cynwyd, PA 19004 USA

Tel:+1 610 668 9090
Fax:+1 610 668 8139

Purolite (China) Co. Limited
Qianlong Economic Development Zone,
Qianyuan Town, Deqing County,
Huzhou City, Zhejiang, China 313216
Tel:+86 572 8422908
Fax:+86 572 8425345

Contact Person:

Ken Shaner

Email:

msds@purolite.com

1.4. Emergency Telephone Number:

+1 866 387 7344
+1 760 602 8703

2. Section 2. Hazard(s) identification

2.1 Classification of the substance or mixture

2.1.1 Hazard summary

Physical hazards	Not classified.
Health hazards	Not classified.
OSHA defined hazards	Not classified.
2.2 Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statements	The mixture does not meet the criteria for classification.
Precautionary Statements	
Prevention	Observe good industrial hygiene practices. Use personal protective equipment as required.
Response	Wash hands after handling. Get medical advice/attention if you feel unwell.
Storage	Store away from incompatible materials.
Disposal	Dispose of contents/container in accordance with local/regional/national /international regulations.
2.3 Hazard(s) not otherwise classified (HNOC)	None known.

3. Section 3. Composition/information on ingredients

3.1 Substance Not applicable.

3.2 Mixture

General Information

Chemical name	%	CAS No.	Notes
Divinylbenzene and acrylate copolymer	35 - 50	-	-
Classification:	DSD:	-	
	CLP:	-	
Water	50 - 65	7732-18-5	-
Classification:	DSD:	-	
	CLP:	-	

Composition comments: All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. Section 4. First aid measures

4.1 Description of first aid measures

4.1.1 Inhalation

-Move into fresh air and keep at rest. Get medical attention if any discomfort continues.

4.1.2 Skin contact

-Wash off immediately with soap and plenty of water. If irritation persists get medical attention.

4.1.3 Eye contact

-Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If eye irritation persists, get medical advice/attention.

4.1.4 Ingestion

-Rinse mouth thoroughly. Never give liquid to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention if any discomfort continues.

4.2 Most important symptoms and effects, both acute and delayed

-Eye contact: Contact may cause irritation with redness, tearing, pain, and/or blurred vision.

4.3 Indication of any immediate medical attention and special treatment

-Treat symptomatically

4.4 General information

-If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Section 5. Fire-fighting measures

5.1 Suitable extinguishing media

-Extinguishing with foam, carbon dioxide, dry powder or water fog.

5.2 Unsuitable extinguishing media

-None known.

5.3 Special hazards arising from the substance or mixture

-By heating and fire, harmful vapors/gases may be formed.

5.4 Special protective equipment for fire fighters

-Wear self-contained breathing apparatus and protective clothing.

5.5 Fire fighting equipment/instructions

-In the event of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Wear self-contained breathing apparatus and protective clothing.

5.6 Specific methods

-Use standard firefighting procedures and consider the hazards of other involved materials.

6. Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

-Keep unnecessary personnel away. Avoid contact with skin and eyes. For personal protection, see section 8 of the SDS.

6.2 Methods and materials for containment and cleaning up

-Avoid the generation of dusts during clean-up.

-Large Spills: Dike the spilled material, where this is possible. Sweep or shovel up material and place in a clearly labeled container for waste. For waste disposal, see Section 13 of the SDS.

-Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

-Never return spills to original containers for re-use.

6.3 Environmental precautions

-Prevent further leakage or spillage if safe to do so. Cover with plastic sheet to prevent spreading. Do not allow to enter drains, sewers or watercourses.

7. Section 7. Handling and storage

7.1 Precautions for safe handling

-Use with adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Observe good industrial hygiene practices. Wash thoroughly after handling. Avoid release to the environment.

7.2 Conditions for safe storage, including any incompatibilities

-Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials (See Section 10).

8. Section 8. Exposure controls/personal protection

8.1 Occupational exposure limits

-No exposure limits noted for ingredient(s).

8.2 Biological limit values

-No biological exposure limits noted for the ingredient(s).

8.3 Exposure guidelines

-This material does not have established exposure limits.

8.4 Appropriate engineering controls

-Provide adequate ventilation.

8.5 Individual protection measures, such as personal protective equipment

-Eye/face protection

-If contact is likely, safety glasses with side shields are recommended.

-Skin protection

-Hand protection

-Protective gloves should be worn to prevent skin contact.

Breakthrough time:

SPECIFIC RECOMMENDATIONS. > 10 minutes.

-Suitable gloves can be recommended by the glove supplier.

-Other

-Wear appropriate clothing to prevent repeated or prolonged skin contact.

-Respiratory protection

-No personal respiratory protective equipment is normally required.

-Thermal hazards

-None known.

-General hygiene considerations

-Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice. Always observe good personal hygiene measures, such as washing after handling the material and before eating,

drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Section 9. Physical and chemical properties

9.1 Appearance: Beads

Physical state: Solid

Form: Bead

Color: White, off-white

Odor: Odorless.

Odor threshold: Not available.

pH: Neutral.

Melting point/freezing point: Not available.

Initial boiling point, and boiling range: Not available.

Flash point: Not available.

Evaporation rate: Not available.

Flammability (solid,gas): Not available.

Upper/lower flammability or explosive limits

-Flammability limit-lower (%): Not available.

-Flammability limit-upper (%): Not available.

Vapor pressure: Like water

Vapor density: Not applicable.

Relative density: 1.15 - 1.20

Solubility(ies)

-Solubility (water): Insoluble in water and organic solvents

Partition coefficient n-octanol/water: No data available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: Not available.

10. Section 10. Stability and reactivity

10.1 Reactivity

-The product is stable and non reactive under normal conditions of use, storage and transport.

10.2 Chemical Stability

-Material is stable under normal conditions.

10.3 Possibility of hazardous reactions

-No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

-Heat, sparks, flames elevated temperatures.

10.5 Incompatible materials

-Strong oxidising agents. Nitric acid.

10.6 Hazardous decomposition products

-Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Section 11. Toxicological information

11.1 Information on likely routes of exposure:

-Inhalation

-Inhalation Under normal conditions of intended use, this material is not expected to be an inhalation hazard. Inhalation of dusts may cause respiratory irritation.

-Skin contact

-May cause mild skin irritation.

-Eye contact

-May cause eye irritation on direct contact.

-Ingestion

-May cause discomfort if swallowed.

-Symptoms related to the physical, chemical and toxicological characteristics

-Irritation of eyes and mucous membranes. Irritation of nose and throat.

11.2 Information on toxicological effects

Acute toxicity

-May cause discomfort if swallowed.

Skin corrosion/irritation

-Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation

-Direct contact with eyes and mucous membranes. Irritation of nose and throat.

Respiratory or skin sensitization

-Respiratory sensitization

-Not classified.

-Skin sensitization

-Not classified.

Germ cell mutagenicity

-Not classified.

Carcinogenicity

-This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Not classified.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

-Not listed.

Reproductive toxicity

-Not classified.

Specific target organ toxicity - single exposure

-Inhalation of dust may cause respiratory irritation.

Specific target organ toxicity - repeated exposure

-Not classified.

Aspiration hazard

-Not classified.

Chronic effects

-Chronic effects are not expected when this product is used as intended.

Further information

-No other specific acute or chronic health impact noted.

12. Section 12. Ecological information

12.1 Toxicity

-No test data available for the product.

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 Mobility in general

-No data available.

12.6 Other adverse effects

-The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13. Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal instructions

-Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose of in accordance with local regulations.

Hazardous waste code

-Not regulated.

Waste from residues / unused products

-Dispose of in accordance with local regulations.

Contaminated packaging

-Empty containers should be taken to an approved waste handling site for recycling or disposal. No special precautions.

14. Section 14. Transport information

14.1 DOT

-Not regulated as dangerous goods.

14.2 IATA

-Not regulated as dangerous goods.

14.3 IMDG

-Not regulated as dangerous goods.

14.4 Transport in Bulk according to AnnexII of MARPOL 73/78 and the IBC Code

-Not applicable.

15. Section 15: Regulatory information

15.1 US federal regulations

-This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

-All components are on the U.S. EPA TSCA Inventory List.

-CERCLA/SARA Hazardous Substances - Not applicable.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

-Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

-Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

-Not listed.

15.2 Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

-Immediate Hazard - No

-Delayed Hazard - No

-Fire Hazard - No

-Pressure Hazard - No

-Reactivity Hazard - No

SARA 302 Extremely hazardous substance

-Not listed.

SARA 311/312 Hazardous chemical

-No

SARA 313 (TRI reporting)

-Not regulated.

15.3 Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

-Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

-Not regulated.

Safe Drinking Water Act (SDWA)

-Not regulated.

15.4 US state regulations

-This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US. Massachusetts RTK - Substance List

-Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

-Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

-Not listed.

US. Rhode Island RTK

-Not regulated.

US. California Proposition 65

-California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

5.5 International Inventories

Country(s) or region	Inventory name	Inventory name	On inventory (yes/no)*
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Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippine	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

15.6 Other International Regulations

REACH Registration Number:

This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of REACH.

Canadian regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR).

WHMIS status: Non-controlled

16. Section 16. Other information, including date of preparation or last revision

HMIS:

Health: 1

Flammability: 1

Physical Hazard: 0



NFPA:

Health: 1

Flammability: 1

Reactivity: 0



List of abbreviations:

References:

ACGIH

EPA: AQUIRE database

NLM: Hazardous Substances Data Base

US. IARC Monographs on Occupational Exposures to Chemical Agents

HSDB® - Hazardous Substances Data Bank

IARC Monographs. Overall Evaluation of Carcinogenicity

National Toxicology Program (NTP) Report on Carcinogens

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

Further information:

-This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of REACH.

Disclaimer:

-The information provided in this safety data sheet is based on current knowledge about the product and current legal requirements and standards. It relates specifically to health, safety and environmental requirements and standards, may not identify all hazards associated with the product or its uses or misuses, does not signify any warranty with regard to the properties of the product, and only applies when the product is used for the purposes indicated in section 1. This product is not sold as suitable for other purposes and such other usage may cause risks not mentioned in this safety data sheet.

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