



Version 2.0 Revision Date 03.01.2017

SAFETY DATA SHEET

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

1.1 Product identifiers

Product name: Styrene-divinylbenzene copolymer with thiouronium functional groups

Trade name: **ALDEX CR 80**

CAS No.: 109945-55-3

1.2 Identified uses of the product

Identified uses: Selective removal of mercury and noble metals from industrial effluents;
Recovery of precious metals in hydrometallurgy.

1.3 Details of the supplier of the safety data sheet

Company: Aldex Chemical Ltd
630 Laurent, Granby
Québec, J2G 8V1, Canada

Telephone: +1 450-372-8844

Fax: +1 450-372-2566

E-mail address: info@aldexchemical.com

1.4 Emergency telephone number

CHEMTREC: North America 1 800-424-9300
International 1 703-527-3887

SECTION 2: HAZARDS IDENTIFICATION

Emergency Overview

- Physical state: white solid beads
- Odor: Not applicable

- Contact with eyes: May cause temporary eye irritation
- Contact with skin: May be slightly irritating to skin

Low hazard for unusual industrial or commercial handling by trained personnel

OSHA regulatory Status

- This product is not hazardous according to OSHA 29CFR 1910.1200

Potential health effects

- Inhalation: No effect at normal work temperatures
- Eye contact: May cause temporary eye irritation
- Skin contact: May be slightly irritating to skin
- Ingestion: Ingestion may cause irritation and malaise although this product does not pose a risk to health
- Chronic Health Effects: No effect
- Target Organ(s): Eye / Skin
- Potential Physical / Chemical Effects: This product is a combustible per NFPA

Environmental Effects

- The environmental hazard of the mixture is considered limited

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Ingredients

Ingredients	%w/w	CAS No.	Hazard Statement	Hazard Pictogram	Symbol
Styrene-divinylbenzene copolymer with thiuronium functional groups	47-53	109945-55-3	-	-	-
Water	47-53	7732-18-5	-	-	-

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact:	Flush with water while holding eyelids open for at least 15 minutes. Get medical attention if any discomfort
Skin contact:	Wash skin with soap and water.
Ingestion:	Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention immediately.

Inhalation: Remove to fresh air, and keep patient at rest. Seek medical attention immediately.

4.2 Most important symptoms and effect, both acute and delayed

The most important know symptoms and effects are described in the section 2-Hazards Identification and or Section 11-Toxicological information.

4.3 Indication of any immediate attention and special treatment needed

No data available

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Use foam, water spray, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Benzene compounds, carbone oxides, Sulfur oxides.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personnel involved in clean-up should wear appropriate personal protective equipment (See section 8).

6.2 Environmental precautions

Place waste in an appropriately labeled sealed container for disposal.

Care should be taken to avoid environmental release.

6.3 Methods and materials for containment and cleaning up

Cleaning/Collecting measures: Contain the source of spill if it is safe to do so.

Sweep up as much as possible and transfer to plastic containers for recovery or disposal.

6.4 Additional consideration for large spills

Non-essential personnel should be removed from affected area.
Clean up operators should be undertaken by trained personnel.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Normal measures for preventive fire protection.

Avoid contact with eyes and prolonged skin contact.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool room (between 0 °C and 40 °C).

Keep container tightly closed in a dry and well-ventilated place.

Store away from incompatible material.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2, no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure limits

No data available

8.2 Exposure controls

Provide adequate ventilation.

Personal protective equipment

Eye/Face protection:

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Hand protection:

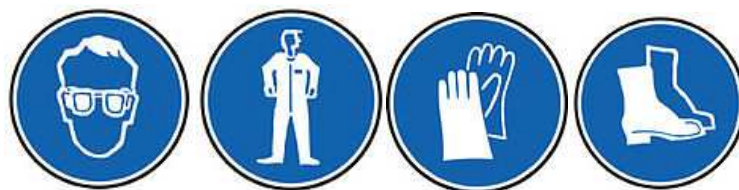
Handle with impervious gloves to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and/or good laboratory practices.

Skin Protection:

Impervious protective clothing is recommended for bulk processing operations.

Respiratory protection:

Where protection from nuisance levels of dusts are desired, use type N95 (US) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).



Environment exposure controls

Environmental manager must be informed of all major spillages

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Solid
Appearance:	White, Macroporous fine bead
Odor:	Odorless
Odor Threshold:	Not applicable
pH Range	(slightly acidic as aqueous slurry)
Melting/Freezing point:	Not applicable
Flash point:	Not applicable
Flammability:	Not applicable
Upper/lower explosive limits	Not applicable
Relative density:	1.11 – 1.12
Vapor density (air = 1):	Not applicable
Vapor pressure:	Not applicable
Water solubility:	Insoluble
Auto-ignition temperature:	500°C
Decomposition temperature:	Not applicable
Viscosity:	Not applicable
Explosive properties:	Not applicable
Oxidizing properties:	Not applicable

9.2 Other safety information

Due the physical properties of the beads, a spill can make a flat floor very slippery. It is strongly recommended to clean the floor to prevent any risk of fall.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No hazardous reactivity.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Not available.

10.4 Conditions to avoid

Considered stable under normal conditions.
Avoid Heat, and contact with incompatible materials.

10.5 Incompatible materials

Avoid contact with strong oxidizing agents.
Contact with strong oxidizers, especially nitric acid, may produce low molecular weight organics that may form explosive mixtures.

10.6 Hazardous decomposition products

Thermal decomposition will yield oxides of carbon, and other toxic gases or vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:	No evidence of acute toxicity
Skin Corrosion/irritation:	No data available
Serious eye damage/irritation:	No data available
Respiratory or skin sensitization	No data available
Germ cell mutagenicity:	No evidence of mutagenic effects
Carcinogenicity:	No evidence of reproductive effects
Reproduction toxicity:	No data available
Specific target organ toxicity:	Single exposure: No data available
	Repeated exposure: No data available
Aspiration hazard	No data available

11.2 Additional information

Handle using good occupational and environmental health practices.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity

No data available

12.2 Persistence and degradability

The product is not readily biodegradable.

12.3 Bioaccumulative potential

Potential to bioaccumulate is low.

12.4 Mobility in soil

The product is insoluble in water and will sediment in water systems.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects

No data available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

General Information: The generation of waste should be avoided or minimized wherever possible. Dispose of waste and residues in accordance with local authority requirements.

Disposal Methods: No Specific disposal me via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

SECTION 14: TRANSPORT INFORMATION

US DOT Information:	Not regulated
TDG Information:	Not regulated
ADR/RID Information:	Not regulated
IATA Information:	Not regulated
IMDG Information:	Not regulated

Environmental Hazard

ADR/RID: No	IMDG Marine pollutant: No	IATA: No
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SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation

Canadian Controlled Product Regulations

This mixture has been classified according to the hazard criteria of the Canadian Controlled Product Regulations, Section 33, and the SDS contains all required information.

WHMIS Classification

This is not a WHMIS controlled mixture

Applicable international laws and regulations

This mixture meets the OECD polymer definition, and is therefore exempt from REACH registration

Inventory Status

This mixture or all components are listed or exempt from listing on the following inventory: TSCA, DSL

US Regulations

CERCLA Hazardous Substance List (40 CFR 302.4): Not regulated

SARA Title III

- Section 302 Extremely Hazardous Substances (40 CFR 355, Appendix A): Not regulated
- Section 311/312 (40 CFR 370):
Acute (immediate) Chronic (Delayed) Fire Reactive Pressure Generating
- Section 313 Toxic Release Inventory (40 CFR 372): Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not Regulated

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3): Not regulated

Drug Enforcement Act: Not regulated

TSCA

- TSCA Section 4(a) Final Test Rules & Testing Consent Orders: Not regulated
- TSCA Section 5(a)(2) Final Significant New Use Rules (SNURs) (40CFR 721, Subpt. E): Not regulated
- TSCA Section 5(e) PMN-Substance Consent Orders: Not regulated
- TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated

State Regulations

- California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): Not regulated
- Massachusetts Right – To – Know list: Not regulated
- Michigan Critical Materials List (Michigan Natural Resources and Environment Protection Act (Act. 451 of 1994): Not regulated.
- Minnesota Hazardous Substances List: Not regulated
- Pennsylvania Right – To –know List: Not regulated
- Rhode Island Right – To- Know List: Not regulated

15.2 Chemical Safety Assessment

Aldex Chemical has not conducted a chemical safety assessment for this product.

SECTION 16: OTHER INFORMATION

Further Information

Hazard rating (NFPA)

Health Hazard	Fire Hazard	Instability	Special Hazard
1	1	0	0

Hazard rating: 0 – minimal; 1 – Slight; 2 – moderate; 3 – Serious; 4 – Severe

Hazard rating (HMIS)

Health Hazard	Flammability	Physical Hazard	Personal Protection
1	1	0	--

Hazard rating: 0 – minimal; 1 – Slight; 2 – moderate; 3 – Serious; 4 – Severe

The data and recommendations presented herein are based upon our research and are believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.

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