



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: Sulfonated Copolymer of styrene and Divinylbenzene in Hydrogen form  
Quaternary amine styrene divinylbenzene copolymer in the hydroxide form

Trade name: **ALDEX MB 50/50**  
CAS No.: Not applicable to mixtures

#### 1.2 Identified uses of the product

Identified use: Water demineralization

#### 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 1703-527-38887

### SECTION 2: HAZARDS IDENTIFICATION

#### Emergency Overview

- Physical state: Clear to dark brown solid beads
- Odor: Odorless

#### Hazard Summary

#### **DANGER!**

Material can cause the following:

- Contact with eyes: Warning! Causes eye irritation (R36)
- Contact with skin: Warning! Causes mild skin irritation

**OSHA regulatory Status**

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

**Potential health effects**

- Inhalation: inhalation of dust can cause irritation of nose, throat, and lungs,
- Eye contact: May cause temporary eye irritation, Reddening, Tearing or may cause permanent eye injury
- 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**

Component	CAS No.	%w/w	Hazard statement	R Phrases	Hazard Pictogram	Symbol
Sulfonated Copolymer of styrene and Divinylbenzene in Hydrogen form	069011-20-7	20-30	H319	R36	GH07	Xi
Quaternary amine styrene divinylbenzene copolymer in the hydroxide form	069011-18-3	20-30	H319	R36	GH07	Xi
Water	7732-18-5	40-60	-	-	-	-

Xi/GH07: Irritant 

## 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, preferably from an ophthalmologist.
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:	Move 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 known 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 specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media

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

### 5.2 Hazardous combustion products

Organic amines. Nitrogen oxides. Carbon oxides. Sulfur oxides. Styrene compounds. Amines

### 5.3 Advice for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA), and protective fire-fighting clothing. If protective equipment is not available, fight fire from a safe distance or a protected location.

### 5.4 Further information

This material will not burn until the water has evaporated. Residue can burn.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Only trained and properly protected personnel must be involved in clean-up operations. Spilled material may cause a slipping hazard. Ventilate area of leak or spill. Refer to Section 7, Handling and Storage, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

### 6.2 Environmental precautions

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

### 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

Avoid contact with eyes and prolonged skin contact. Wash thoroughly after handling.  
Keep container closed. Use with adequate ventilation.  
Static electricity can accumulate on dry beads. Leave room for expansion as dry resin swells upon wetting and/or changing ionic form. Avoid generating and breathing dust. Good housekeeping and controlling of dusts are necessary for safe handling of product. See Section 8, Exposure Controls and Personal Protection.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Store away from incompatible material.

- Use within shelf life date specified on product label.
- The recommended storage temperature is 0 - 50 °C

### 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

None established

### 8.2 Exposure controls

Provide adequate ventilation.

#### Personal protective equipment

Eye/Face protection:

Chemical goggles are recommended unless safety glasses with side shields would be an adequate safety measure in the handling process.

Hand protection:

Handle with impervious gloves to avoid skin contact with this product. Examples of glove barrier materials include: Neoprene. Nitrile/butadiene rubber (Nitrile or NBR). Polyvinyl chloride (PVC or Vinyl). Avoid gloves made of Polyvinyl alcohol (PVA).

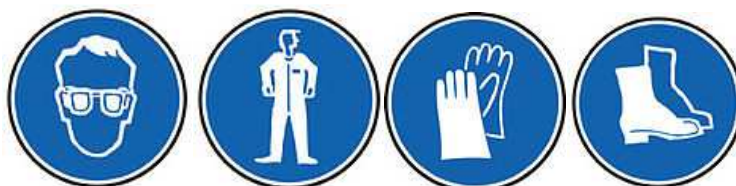
Dispose of contaminated gloves after use in accordance with applicable laws and/or good laboratory practices.

Skin Protection:

Impervious protective clothing is recommended for bulk processing operations.

Respiratory protection:

Under intended handling conditions, no respiratory protection should be needed. Where protection from nuisance levels of dusts are desired, use type N95 (US) dust masks.



#### Engineering Controls

Ventilation:

Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Physical state:	Solid
Appearance:	Clear to dark brown beads
Odor:	Odorless
Odor Threshold:	Not applicable
pH Range	Acidic/Alkaline as aqueous slurry
Melting/Freezing point:	Not applicable
Flash point:	Not applicable
Flammability:	Not applicable
Upper/lower explosive limits	Not applicable
Relative density:	1.06 – 1.28
Vapor density (air = 1):	Not applicable
Vapor pressure (mm Hg):	17 (Water)
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 recommended storage conditions. See Section 7, Handling and Storage.

### 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, organic amines, hydrocarbons, and aromatic compounds.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity:	No evidence of acute toxicity
Ingestion:	LD50, Rat > 5000 mg/kg
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

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity

Not expected to be acutely toxic, but material in pellet or bead form may mechanically cause adverse effects if ingested by waterfowl or aquatic life.

### 12.2 Persistence and degradability

The product is not readily biodegradable. Surface photodegradation is expected with exposure to light.

### 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.

## 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

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

	Health Hazard	Fire Hazard	Instability	Special Hazard
NFPA	1	1	0	0

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

	Health Hazard	Flammability	Physical Hazard	Special protection
HMIS	1	1	0	0

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

#### Relevant statement:

(H319): Causes serious eyes irritation

(R36): irritating to eyes

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