

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of substance or preparation: **Purolex PRC 108 E**
Company/undertaking Identification: **UAB Chemsys**

2. COMPOSITION/INFORMATION ON INGREDIENTS

#	Ingredient	Concentration, %	CAS Number
1	Sulfonated copolymer of Styrene and divinylbenzene in the sodium form	35-65	69011-22-9
2	Water	35-65	7732-18-5

3. HAZARDS IDENTIFICATION

Contact with eyes:

Essentially non-irritating to eyes. Solid or dust may cause irritation or corneal injury due to mechanical action

Contact with skin:

Prolonged or repeated exposure not likely to cause significant skin irritation. Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Ingestion:

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

Inhalation:

No adverse effects are anticipated from inhalation.

Systemic (other target organs):

No significant toxicologic effects were observed in laboratory animals fed this material in their diets for 3 months.

Cancer information:

No relevant information found.

Teratology (birth defects):

No relevant information found.

Reproductive effects:

No relevant information found.

4. FIRST AID MEASURES

Inhalation:

No emergency medical treatment necessary

Contact with skin:

Wash skin with plenty of water.

Contact with eyes:

Flush eyes thoroughly with water for several minutes. Remove contact lenses after initial 1-2 minutes and continue flushing for several additional minutes.

Ingestion:

No emergency medical treatment necessary

Note to physician:

No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE-FIGHTING MEASURES

Flammability:

NFPA Fire rating = 1

Extinguishing media:

Water, CO₂, foam, dry powder

Firefighting Procedures:

Follow general firefighting procedures indicated in the work place.

Protective Equipment:

MSHA/NIOSH approved self-contained breathing gear, full protective clothing.

Combustion Products:

Carbon oxides and other toxic gasses and vapors.

Unusual Hazards:

Product is not combustible until moisture is removed. Resin begins to burn at approximately 230°C. Auto ignition can occur above 500°C.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Keep people away, spilled resin can be a slipping hazard, wear gloves and safety glasses to minimize skin or eye contact.

Incompatible Chemicals:

Strong oxidants can create risk of combustion products similar to burning.

Environmental precautions:

Keep out of public sewers and waterways.

Containment Materials:

Use plastic, paper, or metal containers.

Methods for cleaning up:

Sweep up as much as possible and transfer to plastic containers.

7. HANDLING AND STORAGE

Handling:

Avoid prolonged skin contact. Avoid contact with salts or with salty water to prevent premature exhaustion of the resin. Keep resin moist and avoid allowing resin to completely dry.

Storage:

Store in a cool dry place (0° to 45° C) in the original shipping container. This product is thermally sensitive and will have reduced shelf life if subjected to extended periods of time at temperatures exceeding 50° C. Although freezing does not usually damage ion exchange resins, avoid repeated freeze thaw cycles.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Provide adequate ventilation.

Personal Protection Measures Eye Protection:

Safety glasses or goggles.

Respiratory Protection:

Not required for normal use.

Protective Gloves:

Recommended for extended contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	amber, tan, or black beads
Odor:	none
Water solubility:	none
Physical State:	solid
pH:	near neutral (6 to 9 typical)
Boiling point:	does not boil
Flash point:	approx 500°C
Auto-ignition temperature:	approx 500° C
Decomposition temperature:	above 230° C

10. STABILITY AND REACTIVITY

Reactivity

Chemical stability

Stable under normal conditions.

Conditions to avoid:

Heat, exposure to strong oxidants.

Hazardous by-products:

Organic sulfonates, charred polystyrene, aromatic acids and hydrocarbons, organic amines, nitrogen oxides, carbon oxides, chlorinated hydrocarbons.

Incompatible materials:

Strong oxidizing agents, e.g., nitric acid (such as HNO₃)

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure Oral, skin or eye contact.

Effects of exposure:

Delayed	none known
Immediate (acute)	none known
Chronic	none known

Toxicity Measures:

Skin Adsorption	unlikely
Ingestion	oral toxicity believed to be low but no Id50 has been established
Inhalation	unknown, vapors are very unlikely due to physical properties (insoluble solid)

Toxicity Symptoms:

Ingestion:	indigestion or general malaise
Inhalation:	unknown
Skin contact:	mild rash
Eye contact:	causes serious eye irritation
Contact may cause irritation with redness, tearing, pain, and/or blurred vision	

12. ECOLOGICAL INFORMATION

Ecotoxicity:	no toxicity data noted for the ingredient(s)
Mobility:	Insoluble

Persistence and degradability:	no data available
Bioaccumulative potential:	insignificant
Results of PBT assessment:	assessment not required
Other adverse effects:	not harmful to the environment

13. DISPOSAL CONSIDERATIONS

General considerations

Material is non-hazardous

Disposal Containers

Most plastic and paper containers are suitable

Disposal methods

No specific method necessary

Sewage Disposal

Not recommended

Precautions for incineration

May release toxic vapors when burned

14. TRANSPORT INFORMATION

Transportation Class	not classified as a dangerous good for transport by land, sea, or air
TDG	not regulated
IATA	not regulated
DOT (49 CFR 172.101)	not regulated

15. REGULATORY INFORMATION

CERCLA	not regulated
SARA Title III	not regulated
Clean Air act	not regulated
Clean Water Act	not regulated
TSCA	not regulated

Note:

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.