

NRW35  
NRW36,NRW37,NRW-  
56,NRW40,NRW354,NRW464,NRWP46  
4,NRW-1200,Picopure 56,92,1200,EX-  
MB,MB400 Mixed Bed Resin (also in  
STD,EDM,LC,LT and SC)

07-Dec-2007

**PUROLITE**

## MATERIAL SAFETY DATA SHEET

### 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** NRW35  
NRW36,NRW37,NRW-  
56,NRW40,NRW354,NRW464,NRWP464,NRW-1200,Picopure 56,92,1200,EX-MB,MB400 Mixed Bed  
Resin (also in STD,EDM,LC,LT and SC)

**Manufacturer Name:**  
The Purolite Company  
150 Monument Road  
Bala Cynwyd, PA 19004, USA  
Tel: +1 610 668 9090; Fax: +1 610 668 8139

**Emergency Telephone:**  
(866) 387-7344  
Non-toll free number: 760-602-8703

**Supplier:**  
Purolite International Limited  
Llantrisant Business Park  
Llantrisant, Wales, UK CF72 8 L  
Tel: +44 1443 229334; Fax: +44 1443 227073

Purolite Company Ltd.  
Dongmenwai, Chengguan Town. Deqing Co.,  
Huzhou City, Zhejiang 313216  
Tel: +86 572 842 2908; Fax: +86 572 842 5345

**Intended Use:** Ion Exchange, Adsorbent, and / or  
Catalyst

**Contact Person:**  
Ken Shaner, E-mail: [kshaner@puroliteusa.com](mailto:kshaner@puroliteusa.com)

### 2 HAZARDS IDENTIFICATION

**Emergency Overview**

**Physical State:** Solid (bead)

**Color:** Not applicable.

**Odor:** Not applicable.

**WARNING!**  
Causes eye irritation.

**Potential Health Effects**

**Inhalation:** Limited inhalation hazard at normal work temperatures.

**Eye Contact:** Causes eye irritation. Exposed individuals may experience eye tearing, redness, and discomfort.

**Skin Contact:** May be slightly irritating to skin.

**Ingestion:** Under normal conditions of intended use, this material does not pose a risk to health. However, ingestion may cause irritation and malaise.

**Chronic Health Effects:** No other specific acute or chronic health impact noted.

**Target Organ(s):** | Eye | Skin.

**Potential Physical / Chemical Effects:** This product is not flammable.

**OSHA Regulatory Status:** This product is hazardous according to OSHA 29CFR 1910.1200.

**Environment:** The environmental hazard of the product is considered to be limited.

### 3 COMPOSITION / INFORMATION ON INGREDIENTS

**General Information:** The product contains: Polymer.

Chemical Name	CAS-No.	Concentration*
Water	7732-18-5	40 - 60%
†Benzene, diethenyl-, polymer with ethenylbenzene and ethenylethylbenzene, chloromethylated, trimethylamine-quaternized, hydroxide	69011-18-3	40 - 60%
†Benzene, diethenyl-, polymer with ethenylbenzene and ethenylethylbenzene, sulfonated	69011-20-7	40 - 60%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

† This chemical is hazardous according to OSHA/WHMIS criteria.

### 4 FIRST AID MEASURES

**Inhalation:** No specific first aid measures noted.

**Eye Contact:** Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention.

**Skin Contact:** Wash skin with soap and water.

**Ingestion:** Immediately rinse mouth and drink plenty of water (200-300 ml). Large quantities: Get medical attention if irritation develops and persists.

### 5 FIRE-FIGHTING MEASURES

**Extinguishing Media:** Extinguish with foam, carbon dioxide, dry powder or water fog.

**Unsuitable Extinguishing Media:** Not applicable.

**Special Fire Fighting Procedures:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Unusual Fire & Explosion Hazards:** None known.

**Hazardous Combustion Products:** Amines, Ammonia, Benzene compounds, Carbon Oxides, Hydrocarbons, Nitrogen Oxides, Styrene, Sulfur Oxides

**Protective Measures:** Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

**Flammability Class:** NFPA Rating Fire = 1.

## 6 ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** In case of spills, beware of slippery floors and surfaces. See Section 8 of the MSDS for Personal Protective Equipment.

**Spill Cleanup Methods:** Sweep up spilled substance and remove to safe place. Do not discharge onto the ground or into water courses. Collect and dispose of spillage as indicated in section 13 of the MSDS.

## 7 HANDLING AND STORAGE

**Handling:** Avoid contact with eyes and prolonged skin contact. See Section 8 of the MSDS for Personal Protective Equipment. Observe good industrial hygiene practices.

**Storage:** Store at temperatures above 0°C. Store at temperature below 40°C. Keep in original container. Keep container tightly closed to prevent the loss of water. Store away from incompatible materials.

## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Limits:** No exposure limits noted for ingredient(s).

**Engineering Controls:** Provide adequate ventilation.

**Respiratory Protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: High-efficiency particulate respirator.

**Eye Protection:** Wear safety glasses with side shields (or goggles).

**Hand Protection:** Risk of contact: Wear protective gloves. Suitable gloves can be recommended by the glove supplier.

**Skin Protection:** Risk of contact: Use skin protection. It is a good industrial hygiene practice to minimize skin contact.

**Hygiene Measures:** 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.

**Environmental Exposure Controls:** Environmental manager must be informed of all major spillages.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

**Color:** Not applicable.  
**Odor:** Not applicable.  
**Odor Threshold:** Not applicable.  
**Physical State:** Solid (bead)  
**pH:** Not applicable  
**Melting Point:** Not applicable.  
**Freezing Point:** Not applicable.  
**Boiling Point:** Not applicable.  
**Flash Point:** Not applicable.  
**Evaporation Rate:** Not applicable.  
**Flammability Limit - Upper (%):** Not applicable.  
**Flammability Limit - Lower (%):** Not applicable.  
**Vapor Pressure:** Not applicable.  
**Vapor Density (Air=1):** Not applicable.  
**Specific Gravity:** Not applicable.  
**Solubility in Water:** Insoluble  
**Solubility (Other):** Not applicable.  
**Partition Coefficient (n-Octanol/water):** Not applicable.  
**Autoignition Temperature:** Not applicable.  
**Decomposition Temperature:** Not applicable.

## 10 STABILITY AND REACTIVITY

**Stability:** Material is stable under normal conditions.

**Conditions to Avoid:** Avoid heat.

**Incompatible Materials:** Strong oxidizing agents. Nitric acid.

### Hazardous Decomposition Products:

At Elevated Temperatures:	Amines, Ammonia, Benzene compounds, Carbon Oxides, Hydrocarbons, Nitrogen Oxides, Styrene, Sulfur Oxides
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**Possibility of Hazardous Reactions:** Will not occur.

## 11 TOXICOLOGICAL INFORMATION

**Listed Carcinogens:** None.

**Product Information**

**Acute Toxicity:** No additional adverse health effects noted.

**Chronic Toxicity:** No data available.

**12 ECOLOGICAL INFORMATION**

**Ecotoxicity:** No data available.

**Mobility:** The product is insoluble in water and will sediment in water systems.

**Persistence and Degradability:** The product is not readily biodegradable.

**Bioaccumulation Potential:** Potential to bioaccumulate is low.

**Other Adverse Effects:** No data available.

**13 DISPOSAL CONSIDERATIONS**

**General Information:** Dispose of waste and residues in accordance with local authority requirements.

**Disposal Methods:** No specific disposal method required.

**Container:** Since emptied containers retain product residue, follow label warnings even after container is emptied.

**14 TRANSPORT INFORMATION**

**DOT** Not regulated.

**TDG** Not regulated.

**IATA** Not regulated.

**IMDG** Not regulated.

**15 REGULATORY INFORMATION**

**Canadian Controlled Products Regulations:** This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information.

**WHMIS Classification:** D2B

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**Mexican Dangerous Statement:** This product is dangerous according to Mexican regulations.

**Inventory Status**

**This product 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 Environmental Protection Act (Act. 451 of 1994):** Not regulated.

**Minnesota Hazardous Substances List:** Not regulated.

**New Jersey Right-To-Know List:** Not regulated.

**Pennsylvania Right-To-Know List:** Not regulated.

**Rhode Island Right-To-Know List:** Not regulated.

<b>16</b>	<b>OTHER INFORMATION</b>
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**HAZARD RATINGS**

	<b>Health Hazard</b>	<b>Fire Hazard</b>	<b>Instability</b>	<b>Special Hazard</b>
<b>NFPA</b>	2	1	0	0

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

NFPA Label colored diamond code: Blue - Health; Red - Flammability; Yellow - Instability; White - Special Hazards

	<b>Health Hazard</b>	<b>Flammability</b>	<b>Physical Hazard</b>	<b>Personal Protection</b>
<b>HMIS</b>	2	1	0	--

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

HMIS Label colored bar code: Blue - Health; Red - Flammability; Orange - Physical Hazards; White - Special

**Issue Date:** 07-Dec-2007

**Supersedes Date:**

**SDS No.:** 001

**Disclaimer:** The information provided in this material 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 material safety data sheet.