MagSil PR is a high-purity activated magnesium silicate adsorbent (formula 3MgO·4SiO2·H2O) produced by precipitation reaction of sodium silicate and a magnesium salt. Its polar surface chemistry provides strong, selective adsorption of polar compounds including pesticides, phospholipids, and oxidized lipids from hydrocarbon and organic solvent matrices. Widely used in chromatographic purification and pesticide remediation of botanical extracts.

SECTION 1: PRODUCT IDENTIFICATION

Product Name	MagSil PR
CAS Number	14807-96-6 (Magnesium Silicate); 14808-60-7 (Quartz, 0.1–1.0%)
Chemical Name	Activated Magnesium Silicate; 3MgO·4SiO2·H2O
Molecular Formula	3MgO·4SiO2·H2O | MW: 166.4 g/mol
Form	Off-white to white solid powder
GHS Classification	DANGER — Carcinogenicity Cat 1A (quartz content, by inhalation)
Supplier	Cannagas Supply | 97 Turnpike Rd, Westborough, MA 01581 877-710-1965 | Sales@canna-gas.com

SECTION 2: PHYSICAL & CHEMICAL PROPERTIES

Physical State	Off-white solid powder	**Solubility**	Insoluble in water
Odor	Odorless	**Boiling Point**	Not applicable
pH	Not available	**Vapor Pressure**	Not applicable (solid)
Density	2.5–2.8 g/cm3	**Flash Point**	Not applicable
Melting Point	800°C (1,472°F)	**VOC Content**	None
Flammability	Non-flammable	**Appearance**	Off-white powder

SECTION 3: PERFORMANCE & APPLICATIONS

Mechanism	Polar adsorption — strong affinity for polar, water-soluble, and phospholipid-type compounds via surface hydroxyl and Mg2+ sites.
Primary Adsorption Targets	Pesticides (organophosphates, carbamates, polar pesticide classes); phospholipids; oxidized lipids; heavy metals; polar pigments.
Pesticide Remediation	When paired with acid-activated bleaching clay (e.g., T-41), highly effective for comprehensive pesticide remediation of botanical extracts.
Chromatography Use	Used as stationary phase or adsorbent in column chromatography for selective removal of polar contaminants from non-polar matrices.
Typical Loading	2–10% w/w of feed material. Optimize based on contamination level and target purity.
Compatible Solvents	Hydrocarbon solvents (butane, propane, heptane, pentane). Ethanol and polar solvents reduce selectivity for polar compounds.
Not Suitable For	Removal of non-polar compounds. Ethanol extraction matrices (reduces selectivity).

SECTION 4: STORAGE & HANDLING

Storage	Keep tightly closed in a cool, dry, well-ventilated place. Store locked up (P405).

Shelf Life	Indefinite when stored in sealed, dry containers.
PPE	DANGER classification — always use N95+ respirator, chemical safety goggles, and gloves when handling.

SECTION 5: SAFETY SUMMARY

■ **SAFETY NOTE:** DANGER — Carcinogenicity Cat 1A (H350): Contains crystalline silica (quartz, 0.1–1.0%) — IARC Group 1 carcinogen by inhalation. Always use appropriate respiratory protection (N95 minimum). Refer to full SDS for complete hazard information.

GHS Signal Word	DANGER
Key Hazard	H350: May cause cancer (by inhalation — quartz component).
Min. Respirator	N95 particulate respirator. P100 for higher exposures.
SDS Reference	Full SDS available. CHEMTREC: 1-800-424-9300.