

PRODUCT SHEET

GUARD RESIN

Main Applications

- Removal of organic impurities
- Purification of Ge isotopes (in combination with ZR Resin)

Packing

Order N°.	Form	Particle size
FGR-B200-B, FGR-B100-B, FGR-B50-B, FGR-B25-B	25g, 50g, 100g and 200g bottles Guard Resin	100-200 µm
FGR-C20-B	20 x 2 mL Guard Resin columns	100-200 µm
FGR-R10-B	10 x 2mL Guard Resin cartridges	100-200 µm

Physical and chemical properties

Density: 0.20 g/mL Guard Resin

Conditions of utilization

Recommended T of utilization : /

Storage: Dry and dark at room temperature

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The Guard Resin is a hydrophobic, highly crosslinked, porous polydivinylbenzene based adsorbent. Due to its high hydrophobicity it will remove certain organic impurities, notably organic impurities that are hydrophobic, more efficiently than e.g. the Prefilter Resin. The Guard Resin is generally used in reversed phase chromatography and solid phase extraction, and for the adsorption of biomolecules of up to 14 kDa. It has a surface area of $> 600 \text{ m}^2/\text{g}$ and a typical porosity in the order of $300 - 500 \text{ \AA}$. The resin shows high mechanical and chemical stability, and it may be used over the whole pH range.

Another application of the Guard Resin is the separation, in combination with the ZR Resin, of Ge-68 from GaNi or GaCo targets. The actual separation of Ge from the target material is performed on two consecutive ZR Resin cartridges. The Guard Resin may then be used in the final step of the purification, namely the conversion of final product Ge-68 from dilute citric acid to dilute hydrochloric acid¹.

The Guard Resin is TSE/BSE/GMO free.

Bibliography

- (1) [S. Happel: An overview over some new extraction chromatographic resins and their application in radiopharmacy.](#)