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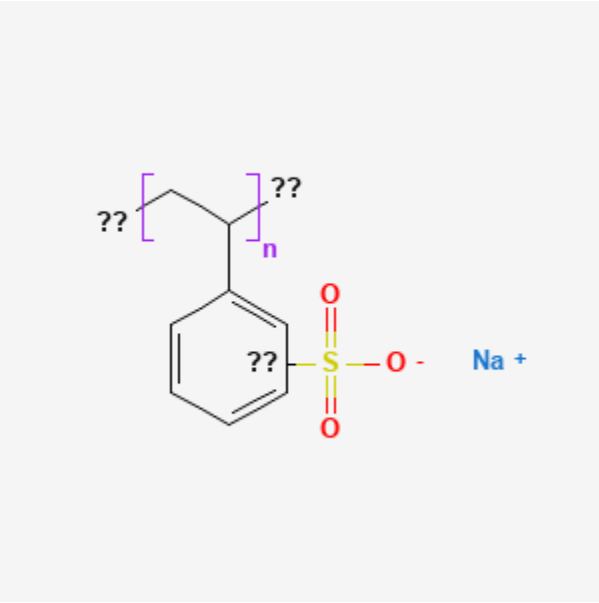
Sodium Polystyrene Sulfonate

Revised: July 19, 2021.

CASRN: 9080-79-9



Drug Levels and Effects

Summary of Use during Lactation

Because sodium polystyrene sulfonate is not orally absorbed, it is unlikely to reach the breastmilk or adversely affect the breastfed infant after maternal administration. No special precautions are required.

A suspension of sodium polystyrene sulfonate has been added directly to breastmilk to lower the potassium concentration of milk for use in infants with renal impairment. In addition to lowering average potassium content by 65%, the calcium content of breastmilk was reduced by 84%.[1] Infants given either expressed breastmilk, formula or a combination of both had their average serum potassium levels decreased by 24% from 6.3 to 4.8 mEq/L. Serum calcium and creatinine also decreased slightly. The infants had no clinically noticeable

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side effects.[2] Addition of large amounts of sodium polystyrene sulfonate to artificial formula also lowers the calcium, copper, manganese, phosphorus, sulfur and zinc concentrations; whereas the iron, sodium and sulfur content of formulas are increased.[3] Similar changes might occur with breastmilk.

Effects in Breastfed Infants

Relevant published information was not found as of the revision date.

Effects on Lactation and Breastmilk

Relevant published information was not found as of the revision date.

Alternate Drugs to Consider

Patiromer

References

1. Bonnet L, Goudable J, Accominotti M, et al. Nephrologie. 1997;18:287–9. [Effect of polystyrene sulfonate resins on milk ionic concentration]. PubMed PMID: 9496569.
2. Thompson K, Flynn J, Okamura D, et al. Pretreatment of formula or expressed breast milk with sodium polystyrene sulfonate (Kayexalate(R)) as a treatment for hyperkalemia in infants with acute or chronic renal insufficiency. J Ren Nutr. 2013;23:333–9. PubMed PMID: 23707305.
3. Taylor JM, Oladitan L, Carlson S, et al. Renal formulas pretreated with medications alters the nutrient profile. Pediatr Nephrol. 2015;30:1815–23. PubMed PMID: 25930981.

Substance Identification

Substance Name

Sodium Polystyrene Sulfonate

CAS Registry Number

9080-79-9

Drug Class

Breast Feeding

Lactation

Cation Exchange Resins

Chelating Agents