Sucrose octasulfate (potassium salt)

**CAS Registry No.:** 73264-44-5

**Formal Name:** 2,3,4,6-tetraakis(hydrogen sulfate),1,3,4,6-tetra-O-sulfo-β-D-fructofuranosyl α-D-glucopyranoside, octapotassium salt

**Synonyms:** SOS, Sucrosofate potassium

**MF:** C_{12}H_{14}O_{35}S_{8} • 8K

**FW:** 1,287.5

**Purity:** ≥95%

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:** ≥2 years

*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

---

**Laboratory Procedures**

Sucrose octasulfate (potassium salt) (SOS) is supplied as a crystalline solid. A stock solution may be made by dissolving the SOS in water. The solubility of SOS in water is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

**Description**

SOS, a component of the gastrointestinal protectant sucralfate, is an alkaline aluminum–sucrose complex that inhibits peptic hydrolysis and raises gastric pH, protecting esophageal epithelium against acid injury.\(^1\) It can bind to exosite II of thrombin (\(K_D = \sim 1.4\) µM) and inhibit its catalytic activity (\(IC_{50} = 4.5\) µM) and, as such, has been used as a surrogate for heparin.\(^2\) Furthermore, SOS has been shown to inhibit tumor growth in mouse melanoma and lung carcinoma models by preventing fibroblast growth factor 2 (FGF-2) binding to endothelial cells and also by removing any pre-bound FGF-2 from these cells (\(IC_{50} = \sim 2\) µg/ml).\(^3\)

**References**