Product Data Sheet

Product Name: Polystyrene
Cat. No.: GC66200

Chemical Properties

Cas. No.	28210-41-5		
Formula	$(C_8H_8O_3S)_X$	M.Wt	
Solubility	H2O : 250 mg/mL (Need ultrasonic)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Polystyrene		

Background

Polystyrene forms Polystyrene microplastics (PS-MPs), a hazardous material with potential toxicity. Polystyrene microplastics is harm to zebrafish heart and induces male reproductive toxicity in mice[1][2].

Polystyrene results 0.5 μm, 4 μm, and 10 μm PS-MPs entering into three kinds of testicular cells (GC-1 cell line) in vitro[2].

Polystyrene (PS-MPs, particle sizes 3-12 μ p.o.; 21 d) shows adverse effect on zebrafish activity and oxidative stress, metabolic changes and contraction parameters in the heart tissue[1].
Polystyrene (PS-MPs, particle sizes of 4 μm and 10 μm; p.o.; 24 h) resultsPS-MPs accumulated in the testis of mice, and (PS-MPs, particle sizes of 4 μm and 10 μm; p.o.; 28 d) induces spermatogenic cells abscissed and arranged disorderly, and multinucleated gonocytes occurred in the seminiferous tubule[2].
Polystyrene, (PS-MPs, particle sizes of 0.5 μm, 4 μm and 10 μm; p.o.; 28 d) induces testicular inflammation and the disruption of blood-testis barrier[2].

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