

WOOW Series:

Acetaldehyde
Acetic Acid
Aluminium Chloride
Ammonium Sulfate
Butyraldehyde
Cellulosolve
Dimethyl Sulfoxide
Dimethyl Sulfide
Formaldehyde
Formic Acid
Glycerol
Glycolic Acid
Glycols
N-methyl pyrrolidone
Phosphoric acid
Potassium Carbonate
Potassium Chloride
Potassium Hydroxide
Potassium Nitrate
Potassium Sulfate
Phenol/Phenolics
Polyglycerol
Para Toluene Sulfonic
Silica
Sulfuric acid
Sodium Bromide
Sodium Bisulfite
Sodium Chloride
Sodium Formate
Sodium Hydroxide
Sodium Metabisulfite
Sodium Sulfate
Sodium Sulfite
Sodium Silicate
Sodium Thiosulfate

Go Green Profitably

Economically recover para-toluene sulfonic acid from waste water stream.

Geist Novel Reactive Precipitation Technology is the preferred solution for separation of PTSA (70% aqueous solution) from dilute aqueous stream of PTSA salts.

Typical Case study:

Aqueous Stream Capacity	= 5000 kg/day with 15% Ammonium-PTSA
Market Price of PTSA	= Rs 52/kg
Value of PTSA in waste stream	= Rs 106 lacs per Annum
Cost of treatment	= Rs 4.5 lacs per annum

For PTSA recovery by NRPT:

Cost of Separation of PTSA (70%)	= Rs 16 /kg
Cost of Major Equipments	= Rs 26.5 lacs *
Other project costs	= Rs 32.5 lacs

Net Savings	= (Material Cost+ Treatment cost-Separation cost)
	= Rs.78 lacs/Annum

Return on Investment (ROI)	= 9 months
----------------------------	------------

Advantages:

1. Complete recovery of PTSA
2. Significantly lower capital expenditure. Very attractive return on investment
3. Works in presence of other organic or inorganic impurities.
4. Saving in the overall production cost because of increased recycle & reuse.
5. Reduced load on treatment and / or disposal.
6. Environmental friendly process and can be converted to zero discharge.
7. Easy to operate.

* Separation cost & Cost of equipments is case specific and may vary with the concentration of Ammonium-PTSA, stream quantity, utility rates and other impurities present

GEIST RESEARCH PVT. LTD.

 AN EARTH WATER ENTERPRISE

L 9A, Phase I, Verna Industrial Estate, Verna, Goa 403 722, INDIA

T: +91-832-2782460 | M: +91-8550996212

E: info@geistwoow.com | W: www.geistwoow.com

