

Go Green Profitably

WOOW Series:

Acetaldehyde
 Acetic Acid
 Aluminium Chloride
 Ammonium Sulfate
 Butyraldehyde
 Cellosolve
 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

Economically recover Potassium carbonate from waste water stream.

Geist Novel Antisolvent Technology is the preferred solution for separation of Potassium carbonate from its aqueous stream.

Typical Case study:

Aqueous Stream Capacity = 20000 kg/day with 12% Potassium carbonate
 Market price of Potassium carbonate = Rs 60 /kg
 Value of Potassium carbonate in waste stream = Rs 430 lacs per Annum
 Cost of treatment = Rs 35 lacs per annum*

For Potassium carbonate (98.5% pure) recovery by Antisolvent Technology:

Cost of Separation = Rs 10 /kg of Potassium carbonate
 Cost of Major Equipments = Rs 45 lacs **
 Other Project Costs = Rs 50 lacs
 Savings = (Material Cost + Treatment cost - Separation Cost)
 = Rs.380 lacs/Annum

Payback Period = Less than 6 months

Advantages:

1. Complete recovery of Potassium carbonate.
2. Significantly lower capital expenditure.
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. Very attractive return on investment (typically less than a year)
8. Easy to operate.

* Triple effect evaporator with steam economy 0.6 and Steam cost Rs 1/Kg

** Separation cost & Cost of equipments is case specific and may vary with the concentration of Potassium Carbonate, stream quantity, availability of waste heat and other impurities present.

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