

### 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

### Go Green Profitably

Economically Recover Glycolic acid from waste water stream.

Geist Novel Separation Technology (NEST) is the preferred solution for separation of glycolic acid as 70% Glycolic acid solution (GA solution) in water from dilute waste water stream.

#### Typical Case study:

Aqueous Stream Capacity	=	10000 kg/day with 5% Glycolic acid
Market price of GA solution (70%)	=	Rs 100/kg
Value of Glycolic acid in waste stream	=	Rs 2.05 Crores per Annum
Cost of treatment	=	Rs 6 lacs per annum

For Glycolic acid recovery by NEST:

Cost of Separation of GA solution (70%)	=	Rs 6/kg *
Cost of Major Equipments	=	Rs 26 lacs *
Other Project Costs	=	Rs 35 lacs
Savings:	=	Rs.2 Crores per annum
(Material Cost + Treatment cost - Separation Cost)		

Payback Period = 4 months

#### Advantages:

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

\* Separation cost & Cost of equipments is case specific and may vary with the concentration of glycolic acid, stream quantity, impurities present & utility rates.

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