

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 Aluminium Chloride Hexahydrate (AlCl₃.6H₂O) from its waste water stream.

Geist Novel Antisolvent Technology is the preferred solution for Aluminium Chloride Hexahydrate (AlCl₃.6H₂O) recovery from its waste water stream.

Typical Case study:

Aqueous Stream Capacity = 15000 kg/day with 20% AlCl₃.6H₂O
Value of AlCl₃.6H₂O in waste stream > Rs 110 lacs per Annum
Cost of treatment and/or Cost of disposal = Rs 20 lacs per annum

For AlCl₃.6H₂O, 54-55% purity (on AlCl₃ Anhydrous basis) recovery:

Cost of Separation of AlCl₃.6H₂O separated* = Rs 1.5/kg of AlCl₃.6H₂O (95% recovery)
Cost of Major Equipments = Rs 60 lacs *
Savings = **Rs. 65 lacs/Annum**

Return on Investment (ROI) = 12 months

Advantages:

- Complete recovery of commercial grade AlCl₃.6H₂O with minimum 54-55% purity (on AlCl₃ Anhydrous basis).
- Significantly lower capital expenditure.
- Works in presence of other organic or inorganic impurities.
- Saving in the overall production cost because of increased recycle & reuse of AlCl₃.6H₂O & reduced load on treatment and / or disposal.
- Elimination of AlCl₃ waste generation.
- Environmental friendly and can be converted to zero discharge.
- Very attractive return on investment (typically less than a year).
- Easy to operate.

Applicable for: Dye Intermediates, API and pharmaceuticals, Agro chemicals, Specialty chemicals or any other industry where AlCl₃ is used as a catalyst / Lewis acid.

* Separation cost & Cost of equipments is case specific and may vary with the concentration of AlCl₃, stream quantity 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

