

One AquaSource, Inc.



Mission Statement

One AquaSource is a full service source for industrial / commercial water, hydrocarbon production & and environmental management. We are committed to providing our Clients the most technically advanced equipment, molecular building blocks and consulting services to provide the very best possible system performance.

'We are not the biggest, but we will be the BEST!'



Company Background

- Founded in 1997
- Principle owner: Mitch George
- Located in Holland (Toledo), OH
- Very experienced consultants



Product Line

- Liquid - solid separation products
- Boiler & Cooling water products
- Oil & Gas production chemicals
- Feed & control equipment



Liquid - solid separation

- Coagulants/emulsion breakers
- Flocculants
- Metal precipitants
- Defoamers/antifoams

Coagulants/emulsion breaking

The key is charge neutralization; most colloids are anions, and for separation to occur the negative charge must be neutralized. High energy input is required!!

- Inorganics
 - Fe based - depress pH, form mass sludge, require NaOH
 - $AlSO_4$ - same as Fe plus sludge very hydrated
- Organic coagulants
 - EPI-DMA, DADMAC - high charge to mass ratio, work great on colloids & oil, poor on surfactants.
- Blends
 - Perform best when high anionic surfactants; i.e metal working fluids

Flocculation

Flocculation is the agglomeration of small, coagulated particles to enhance settling.

- Coagulants provide some flocculation
- Organic flocculants: VERY high molecular weight, polyacrylamide polymers.
- Can be charged anionic, cationic and nonionic. Charge is more dependent on water pH than on particles. Gentle mixing required.

Misc Applications

- Metals Removals
 - OH precipitation
 - Fe co-precipitation
 - Sulfide based precipitation
- Phosphorous Removal
 - Alum, ferric & ferrous: reduce pH & make **MUCH** sludge
 - Sodium aluminate: raises pH and makes less sludge
- Defoamers/antifoams
- Oil scavenging: highly oil-philic filtration