



Reducing EC/TDS in Wastewater

Integrated Engineers, Inc. has developed a product that will reduce the EC/TDS addition as compared to the use of acids/caustics for pH adjustment and coagulants in industrial wastewater. The products are our FloccinAgent™ product line, manufactured in Fresno, California. They add far less EC/TDS to waste streams and are usually equal or more cost effective than conventional wastewater chemicals in their reduction in BOD, TSS and sludge de-waterability. Below is a list of industries that we have tested and proven a reduced level of dissolved salts contributed by conventional wastewater chemistries (units in µohm/cm):

Industry	Untreated	Conventional Chemistry ¹	Floccin Chemistry
Industrial Laundry ²	1,156	2,250	1,297
Chicken Processor	970	1,800	1,150
Corrugator	2,800	8,000	3,100
Bag Manufacturer	1,000	1,800	1,100
Iron Foundry	2,000	2,800	2,100
Glue Mfg	2,000	8,500	3,200
Chicken Cook Plant	1,500	3,200	1,750
Machining Coolant	5700	10,500	6,621
Milk Processor	1,700	2,000	1,700

¹ Conventional Chemistry is acid/caustic for pH adjustment, alum or ferric, and a flocculant

² Industrial laundry data is based on an average of 5 facilities

The use of the Floccin products adds a very small amount of dissolved salts to the water as compared to conventional chemistry. The benefit to industrial facilities in the San Joaquin Valley is it will help with the Regional Water Quality basin plan of reducing the overall dissolved salts and potential impact to groundwater quality.

