

# Compaction of Fine Salts and Chemicals

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## ABSTRACT

*Less than ten years ago the recovery of salt fines by agglomeration presented an intriguing possibility for utilizing salt fines in mining operations. Today it is accomplished commercially by passing salt fines between smooth rolls capable of exerting sufficient pressure so that the resultant sheet so produced can be granulated on standard grinding equipment into any desired particle size range. The physical characteristics of the granulated product approach that of the natural crystal and in special cases appear to be superior to it. The technique has been employed commercially on other chemical compounds including many sodium, potassium and ammonium salts, and has been expanded to include materials such as mixed fertilizers, herbicides, burnt lime, and phosphate rock fines. It shows promise as a medium for the preparation of kiln feeds as, for example, cement raw mix and iron ore fines. Organics such as urea and plastics are also processed commercially in a similar manner. Prospects are bright for the extension of smooth roll agglomerating techniques to many other materials, and laboratory studies indicate they will enjoy the same success as that achieved with inorganic salts.*