1035-43-920   **Norbert N. Youmbi*** (`nyoumbi@francis.edu`), Department Mathematical Sciences, 117 Evergreen Dr, Sullican 114, Loretto, PA. *A Rees Product for Topological Semihypergroup.*

A semihypergroup is obtained by dropping the requirement of identity and involution from the definition of a hypergroup (DJS). Semihypergroups generalize in many ways topological semigroups. Idempotent measures in locally compact semigroups are supported by a completely simple semigroup. The situation becomes more complex in the case of a semihyprgroup where there are examples of idempotent measures on a commutative semihypergroup which are not supported by a completely simple semihypergroup. In analogie with the Rees product for semigroups, we define a Rees convolution product for semihypergroups. It is shown that if H is a topological hypergroup and X, Y are two nonempty set then XxHxY together with the Rees convolution product is a completely simple topological semihypergroup. Moreover every idempotent elements of XxHxY is in the center of the semihypergroup. Further we prove that XxHxY is commutative if and only if X and Y are singleton and in this case XxHxY is a hypergroup. In contrast with semigroups cases, we give examples of simple semihypergroups that are not completely simple even for commutative cases. (Received September 18, 2007)