Let *R* be a ring, and let *S* be a semigroup. The semigroup ring *R*[*S*] simultaneously encodes the semigroup structure of *S* and the ring structure resulting in an object of great utility in various areas of both ring theory and group theory. The interplay between the structures of *R*, *S*, and *R*[*S*] is a topic with a long mathematical history full of fascinating results. In this talk, we discuss semiprimeness and related properties of semigroup rings over a particular class of semigroups: those semigroups which arise as the multiplicative semigroup of a ring.