Acceptable Morita contexts for semigroups

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To develop reasonable Morita equivalence theory for semigroups, one usually assumes the existence of (some kind of) local units in semigroups. In fact, if two semigroups are strongly Morita equivalent then they have to be at least factorisable (that is, every element can be written as a product of two elements). For arbitrary semigroups very little can be said, but it turns out that there are conditions (acceptability and purity) on a Morita context containing two semigroups that are equivalent to the equivalence of categories of certain right acts over these semigroups.