We study cocycles of an ergodic generic countable equivalence relation \mathcal{R} (i.e. \mathcal{R} is generated by a countable ergodic homeomorphism group of a Polish space). All the properties are studied modulo meager sets. Two cocycles of \mathcal{R} are called weakly (or orbit) equivalent if they are cohomological up to an element from Aut \mathcal{R} . One can associate with any cocycle the generic Mackey action, which is an invariant of weak equivalence. We prove that this invariant is complete for cocycles with values in an arbitrary countable group. This generic dynamics result is paralleled to the well-known measure-theoretic classification result for cocycles of measured hyperfinite equivalence relation (Golodets-Sinelshchikov-Bezuglyi).