Neutrinos are massive particles as the experimental observation of neutrino oscillations prove. For this reason, models beyond the Standard Model invoke neutral heavy leptons (NHL) as messengers in order to induce neutrino mass, as in seesaw schemes. But these NHL are too heavy to take part in neutrino oscillations, however they mix with light neutrinos. As a consequence, the lepton mixing matrix will be non-unitary. In order to study the non-unitarity implications, we have developed a complete, but simple parametrization, which separates “new physics” from “standard” physics. It is very convenient to describe such NHL schemes (with a large number of parameters), because it condenses the “new physics” information into very few parameters. This formalism has been applied to describe non-unitarity effects on: universality tests from beta, pion and muon decay, oscillation probabilities or description of neutrino seesaw schemes.