The aerosol sizes used in MERRA2 (and in the current version of GEOS/GOCART) are:

* Dust
Dust aerosol is represented with 5 bins that correspond to dry size ranges (in μ) and densities (kg/m^{-3}):

bin	1	2	3	4	5
radius	0.73	1.4	2.4	4.5	8.0
radius lower	0.1	1.0	1.8	3.0	6.0
radius upper	1.0	1.8	3.0	6.0	10.0
density	2500	2650	2650	2650	2650

* Sea salt
Sea salt aerosol is represented with 5 bins that correspond to dry size ranges (in μ) and densities (kg m^{-3}):

bin	1	2	3	4	5
radius	0.079	0.316	1.119	2.818	7.772
radius lower	0.03	0.1	0.5	1.5	5.0
radius upper	0.1	0.5	1.5	5.0	10.0
density	2200	2200	2200	2200	2200

* Organic carbon
OC aerosol is represented with two tracers/bin that correspond to hydrophobic and (aged) hydrophilic particles. Dry size and density for the two OC tracers are: 0.35μ and 1800 kg/m^3.

* Black carbon
BC aerosol is represented with two tracers/bin that correspond to hydrophobic and (aged) hydrophilic particles. Dry size and density for the two BC tracers are: 0.35μ and 1800 kg/m^3.

* Sulfate aerosol
Four tracers are used to represent the sulfate cycle in the atmosphere. These correspond to DMS, SO_2, SO_4 and MSA species. Tracers 1, 2 and 4 are gas species and do not have associated sizes with them. The SO_4 tracer (#3) corresponds to sulfate particles and has dry size and density of 0.35μ and 1700 kg/m^3.

* Nitrate aerosol
Five tracers are used to represent the nitrate chemistry in the atmosphere. These correspond to ammonia
  (NH_3, gas phase), ammonium ion (NH_4^+, aerosol phase), (particulate NO_3) nitrate size bin 001 through 003.

bin	1	2	3	4	5
radius	0.0	0.2695	0.2695	2.1	7.57
density	1000	1769	1725	2200	2650