

Parameters		Minimum set	Reduced set	Standard set	Uncertainty range
1	Injected SO ₂ mass	X	X	X	5–10 Tg S
2	Mid-point height of 3 km thick injection	X	X	X	18–30 km
3	Latitudinal extent of the injection	X	X	X	Factor 0–1 to varies from one-box injection at 15° N (factor = 0) to equator-to-15° N (factor = 1)
4	Sedimentation velocity		X	X	Multiply model calculated velocity by a factor 0.5 to 2.
5	SO ₂ oxidation scaling		X	X	Scale gas phase oxidation of SO ₂ by a factor 0.5 to 2
6	Nucleation rate of sulfate particles			X	Scale model calculated rate by a factor 0.5 to 2.
7	Sub-grid particle formation factor.			X	Emit fraction of SO ₂ as sulfuric acid particles formed at sub-grid scale (0 to 10 %)
8	Coagulation rate			X	Scale the model calculated rate by a factor 0.5 to 2.