

List of necessary Apparatus, Compost and Reagents for doing MODA test.

1)Apparatus		Details	Refer (ISO14855-2)
a	Balance	reading down to 10mg capacity greater than 500g	6.7
b	Others(such as pH meter)	if necessary	6

*Refer section 6.1, 6.2, 6.4 and 6.8 of ISO14855-2 about the function of MODA.

2)Compost(inoculum)		Details	Refer (ISO14855-2)
	C/N ratio	15	7.1
	C/P ratio	30	7.1
	water content	65%	7.1
	total dry solid content	35%-55% of the wet solids	3.3 7.1
	volatile-solid content	more than 30% of the dry solids	3.4 7.1
	pH	7.0-9.0	7.1
	age of compost	2-4months	7.1

*Necessary weight of compost is 1kg for 6 reactors installed in one MODA unit.

*Refer section 7.1 "Preparation of the inoculum" of ISO14855-2 to know more about the detail.

3)Reagents		Details	Refer (ISO14855-2)	for 45day/unit	for reference, Type and Maker in Japan		CAS No.
a	Soda lime	particle size : 2-4mm for CO2 absorption	5.1	1,500 g	37089-08	Kanto Chemical Co.,Inc.	8006-28-8
b	Anhydrous calcium chloride	particle size : 2-3mm for water absorption	5.2	840 g	07055-08	Kanto Chemical Co.,Inc.	10043-52-4
c	Sodium hydroxide on a talc support (Soda talc)	particle size : 2-3mm for CO2 absorption	5.3	600 g	1015641000	Merck	1310-73-2
d	Silica gel(with moisture indicator)	particle size : 2-4mm for water absorption	5.4	1,800 g	37039-082	Kanto Chemical Co.,Inc.	7631-86-9
e	Sea Sand	Sea sand passed through 20-35mesh sieve (425-850µm)	5.5 7.2	1,920 g	194-08171	Wako Pure Chemical Industries, Ltd	N/A
f	Reference material (TLC grade microcrystalline cellulose)	particle size : less than 20µm	5.6	60 g	1023300500	Merck	9004-34-6
g	Sulfuric acid	2N(=1mol/L)	Annex A	960 ml	37390-01	Kanto Chemical Co.,Inc.	7664-93-9

4)Other	
a	Brush, Turner, Funnel(made of metal) etc. for stirring compost(refer photo right)
b	Stand for holding Reaction Column
c	Bowl or Tray(made of metal) for stirring compost
d	Glass flow meter that can measure 10-40ml/min(for confirmation of outlet air flow) size:φ8 barbed fitting *for reference, Type and Maker in Japan : KG70<Kusano Science Co.,>

