



ALLIANCE MEMORY MDS REPORT

Part Number:		AS4C256M16D3A-12BCN / AS4C256M16D3A-12BIN / AS4C256M16D3A-12BAN								
Part Weight:		191.36mg								
No.	Part Name	Material Name	Component wt (mg)	Material Content (Element)	CAS Number	Element wt (%)	Element wt (mg)	wt % of Total unit wt	PPM	
1	Substrate	HL-8320NX / AUS 308	43.885	E-Glass Fabric	65997-17-3	18.71%	8.209	4.29%	187058.73	
				Epoxy Resin	29690-82-2	18.71%	8.209	4.29%	187058.73	
				Fillers	21645-51-2	6.24%	2.736	1.43%	62352.91	
				DOPO	35948-25-5	9.35%	4.105	2.14%	93529.63	
				Talc containing no asbestiform fibers	14807-96-6	0.48%	0.211	0.11%	4800	
				Morpholine derivative	Trade secret	0.48%	0.211	0.11%	4800	
				Barium sulfate	7727-43-7	5.40%	2.370	1.24%	54000	
				Silica, amorphous	7631-86-9	0.12%	0.053	0.03%	1200	
				Dipropylene glycol monomethyl ether	34590-94-8	2.88%	1.264	0.66%	28800	
				Epoxy resin A	Trade secret	1.56%	0.685	0.36%	15600	
				Epoxy resin B	85954-11-6	1.08%	0.474	0.25%	10800	
				Copper	7440-50-8	25.00%	10.971	5.73%	250000	
				Nickel	7440-02-0	8.00%	3.511	1.83%	80000	
2	Mold compound	CEL-9120HF	81.114	Gold	7440-57-5	2.00%	0.878	0.46%	20000	
				Epoxy Resin	Trade secret	4.00%	3.245	1.70%	40000	
				Hardener	Trade secret	3.00%	2.433	1.27%	30000	
				Metal hydroxide	Trade secret	4.50%	3.650	1.91%	45000	
				Carbon black	1333-86-4	0.20%	0.162	0.08%	2000	
				Amorphous silica	60676-86-0	83.30%	67.568	35.31%	833000	
3	Epoxy	6202C	2.827	Crystal silica	14808-60-7	5.00%	4.056	2.12%	50000	
				Diethylene glycol monoethyl ether acetate	112-15-2	35.00%	0.989	0.52%	350000	
				Rubber modified epoxy	Trade secret	35.00%	0.989	0.52%	350000	
				Carbamate resin	Trade secret	5.00%	0.141	0.07%	50000	
				Bismaleimide resin	Trade secret	5.00%	0.141	0.07%	50000	
4	Solder ball	M705	33.878	Others	Trade secret	20.00%	0.565	0.30%	200000	
				Tin	7440-31-5	96.50%	32.692	17.08%	965000	
				Silver	7440-22-4	3.00%	1.016	0.53%	30000	
				Copper	7440-50-8	0.50%	0.169	0.09%	5000	
5	Gold wire	Au	0.251	Gold	7440-57-5	99.99%	0.251	0.13%	999900	
				Others	Trade Secret	0.01%	0.000	0.00%	100	
				6	Die	Chip	29.405	Silicon	7440-21-3	100.00%
			191.36				600.00%	191.360	100.00%	6000000