



ALLIANCE MEMORY MDS REPORT

Part Number:		AS4C128M8D2A-25BCN/AS4C128M8D2A-25BIN								
Part Weight:		151.734mg								
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-832NXA / AUS 308	33.48	Continuous Filament Fiber Glass	65997-17-3	35.84%	11.999	7.91%	358400	
				Cured thermosetting resin (including inorganic filler)	Trade secret	35.84%	11.999	7.91%	358400	
				Talc containing no asbestiform fibers	14807-96-6	0.39%	0.130	0.09%	3880	
				Morpholine derivative	Trade secret	0.39%	0.130	0.09%	3880	
				Barium sulfate	7727-43-7	4.27%	1.429	0.94%	42680	
				Silica, amorphous	7631-86-9	0.10%	0.032	0.02%	970	
				Dipropylene glycol monomethyl ether	34590-94-8	2.33%	0.779	0.51%	23280	
				Naphthalene	91-20-3	0.10%	0.032	0.02%	970	
				Epoxy resin A	Trade secret	1.26%	0.422	0.28%	12610	
				Epoxy resin B	85954-11-6	0.87%	0.292	0.19%	8730	
				Copper	7440-50-8	17.08%	5.718	3.77%	170800	
				Nickel	7440-02-0	1.20%	0.402	0.26%	12000	
Gold	7440-57-5	0.34%	0.114	0.08%	3400					
2	Mold compound	CEL-1802HF	80.413	Epoxy resin1	Trade Secret	2.10%	1.689	1.11%	21000	
				Epoxy resin2	Trade Secret	2.10%	1.689	1.11%	21000	
				Hardener	Trade secret	5.30%	4.262	2.81%	53000	
				Metal Hydroxide	Trade secret	3.85%	3.096	2.04%	38500	
				Carbon Black	1333-86-4	0.20%	0.161	0.11%	2000	
				Amorphous silica	60676-86-0	85.45%	68.713	45.29%	854500	
				Crystalline silica	14808-60-7	1.00%	0.804	0.53%	10000	
3	Epoxy	6202C	0.86	2-(2-Ethoxyethoxy)ethyl acetate	112-15-2	30.00%	0.258	0.17%	300000	
				Modified Epoxy Resin	Trade secret	30.00%	0.258	0.17%	300000	
				Silicon dioxide	7631-86-9	10.00%	0.086	0.06%	100000	
				Epoxy resin	Trade secret	10.00%	0.086	0.06%	100000	
				Carbamate Resin	Trade secret	9.70%	0.083	0.05%	97000	
				Di-ester Resin	Trade secret	4.55%	0.039	0.03%	45500	
				Isodecyl alcohol,ethoxylated	Trade secret	4.85%	0.042	0.03%	48500	
Silane	Trade secret	0.90%	0.008	0.01%	9000					
4	Solder ball	Sn96.5Ag3Cu0.5	21.174	Tin	7440-31-5	96.50%	20.433	13.47%	965000	
				Silver	7440-22-4	3.00%	0.635	0.42%	30000	
				Copper	7440-50-8	0.50%	0.106	0.07%	5000	
5	Gold wire	Au	0.155	Gold	7440-57-5	99.99%	0.155	0.10%	999900	
				Others	Trade Secret	0.01%	0.000	0.00%	100	
6	Die	Chip	15.652	Silicon	7440-21-3	100.00%	15.652	10.32%	1000000	
			151.734				600.00%	151.734	100.00%	6000000