



ALLIANCE MEMORY MDS REPORT

Part Number:		AS4C128M8D3LB-12BCN/AS4C128M8D3LB-12BIN/AS4C128M8D3LB-12BAN								
Part Weight:		137.37mg								
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	25.524	Continuous Filament Fiber Glass	65997-17-3	32.91%	8.400	6.11%	329100	
				Cured thermosetting resin (including inorganic filler)	Trade secret	32.91%	8.400	6.11%	329100	
				Talc containing no asbestiform fibers	14807-96-6	0.47%	0.119	0.09%	4660	
				Morpholine derivative	Trade secret	0.47%	0.119	0.09%	4660	
				Barium sulfate	7727-43-7	5.13%	1.308	0.95%	51260	
				Silica, amorphous	7631-86-9	0.12%	0.030	0.02%	1165	
				Dipropylene glycol monomethyl ether	34590-94-8	2.80%	0.714	0.52%	27960	
				Naphthalene	91-20-3	0.12%	0.030	0.02%	1165	
				Epoxy resin A	Trade secret	1.51%	0.387	0.28%	15145	
				Epoxy resin B	85954-11-6	1.05%	0.268	0.19%	10485	
				Copper	7440-50-8	19.94%	5.089	3.70%	199400	
				Nickel	7440-02-0	2.02%	0.516	0.38%	20200	
				Gold	7440-57-5	0.57%	0.145	0.11%	5700	
2	Mold compound	CEL-9120HF	72.651	Epoxy resin	Trade Secret	5.40%	3.923	2.86%	54000	
				Hardener	Trade secret	5.30%	3.851	2.80%	53000	
				Carbon Black	1333-86-4	0.20%	0.145	0.11%	2000	
				Amorphous silica	60676-86-0	86.65%	62.952	45.83%	866500	
				Crystalline silica	14808-60-7	2.45%	1.780	1.30%	24500	
3	Epoxy	6202C	1.001	2-(2-Ethoxyethoxy)ethyl acetate	112-15-2	38.66%	0.387	0.28%	386600	
				Butadiene, acrylonitrile polymer, carboxy-terminated, polymer with bisphenol A and epichlorohydrin	68610-41-3	28.26%	0.283	0.21%	282600	
				Isodecyl alcohol,ethoxylated	61827-42-7	10.00%	0.100	0.07%	100000	
				Silica Filler	112926-00-8	22.43%	0.225	0.16%	224300	
4	Solder ball	SnAgCu	27.526	tert-butyl peroxyneodecanoate	26748-41-4	0.65%	0.007	0.00%	6500	
				Tin	7440-31-5	96.50%	26.563	19.34%	965000	
				Silver	7440-22-4	3.00%	0.826	0.60%	30000	
5	Gold wire	Au	0.254	Copper	7440-50-8	0.50%	0.138	0.10%	5000	
				Gold	7440-57-5	99.99%	0.254	0.18%	999900	
				Others	Trade Secret	0.01%	0.000	0.00%	100	
6	Die	Chip	10.414	Silicon	7440-21-3	100.00%	10.414	7.58%	1000000	
			137.37				600.00%	137.370	100.00%	6000000