



ALLIANCE MEMORY MDS REPORT

Part Number:		AS4C512M8D4 - xxBCN / BIN							
Part Weight:		150.252mg							
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-832NX-A / AUS 308	45.07	Cured thermosetting resin (including inorganic filler)	Trade Secret	10.92%	4.922	3.28%	109200
				Continuous Filament Fiber Glass	65997-17-3	10.92%	4.922	3.28%	109200
				Acrylic Resin	2594322	3.89%	1.755	1.17%	38938.5
				Phthalocyanine Blue, Organic Pigment	147-14-8	0.03%	0.014	0.01%	305.4
				Barium Sulfate	7727-43-7	0.99%	0.447	0.30%	9925.5
				Silica	7631-86-9	0.99%	0.447	0.30%	9925.5
				Talc	14807-96-6	0.99%	0.447	0.30%	9925.5
				Aromatic Carbonyl Compound	Trade Secret	0.38%	0.172	0.11%	3817.5
				Amine compound	Trade Secret	0.06%	0.028	0.02%	610.8
				Levelling agents and others	Trade Secret	0.15%	0.069	0.05%	1527
				Diethylene Glycol Monoethyl Ether Acetate	112-15-2	0.02%	0.007	0.00%	152.7
				Dipropylene Glycol Monoethyl Ether	34590-94-8	1.39%	0.626	0.42%	13895.7
				High Boiling Point Petroleum Solvent	Trade Secret	0.37%	0.165	0.11%	3664.8
				3-Methoxy-3-Methyl Butyl Acetate	103429-90-9	2.18%	0.984	0.65%	21836.1
				Acrylic Monomer	Trade Secret	0.60%	0.268	0.18%	5955.3
				Epoxy Resin	24969-06-0	2.03%	0.915	0.61%	20309.1
				Organic Filler	Trade Secret	0.20%	0.089	0.06%	1985.1
				Barium Sulfate	7727-43-7	0.99%	0.447	0.30%	9925.5
				Copper	7440-50-8	59.53%	26.830	17.86%	595300
				Nickel	7440-02-0	2.94%	1.325	0.88%	29400
				Potassium dicyanoaurate	13967-50-5	0.42%	0.189	0.13%	4200
2	Mold compound	CEL-1702HF	50.386	Epoxy resin	Trade Secret	8.50%	4.283	2.85%	85000
				2,2'-((3,3',5,5'-tetramethy-(1,1'-biphenyl)-4,4'-diyl)-bis(oxymethylene))-bis-oxirane	Trade Secret	6.00%	3.023	2.01%	60000
				Formaldehyde, polymer with 2-(chloromethyl)oxirane and 2-methylphenol	Trade Secret	0.50%	0.252	0.17%	5000
				Hardener	Trade Secret	8.50%	4.283	2.85%	85000
				Carbon black	1333-86-4	0.50%	0.252	0.17%	5000
				Amorphous silica 1	60676-86-0	68.50%	34.515	22.97%	685000
				Amorphous silica 2	7631-86-9	7.50%	3.779	2.52%	75000
3	Epoxy	6202C	1.926	2-(2-Ethoxyethoxy)ethyl acetate	112-15-2	50.00%	0.963	0.64%	500000
				Butadiene, acrylonitrile polymer, carboxy-terminated, polymer with bisphenol A and epichlorohydrin	68610-41-3	50.00%	0.963	0.64%	500000
4	Solder ball	Sn96.8Ag3.0Cu0.2	27.093	Tin	7440-31-5	96.80%	26.226	17.45%	968000
				Silver	7440-22-4	3.00%	0.813	0.54%	30000
				Copper	7440-50-8	0.20%	0.054	0.04%	2000
5	Gold wire	Au	0.204	Au	7440-57-5	99.99%	0.204	0.14%	999900
				Others	Trade Secret	0.01%	0.000	0.00%	100
6	Die	Chip	25.573	Silicon	7440-21-3	100.00%	25.573	17.02%	1000000
150.252						600.00%	150.252	100.00%	6000000