



ALLIANCE MEMORY MDS REPORT

Part Number:			AS4C512M32MD4VA-046BIN						
Part Weight:			251mg						
NO.	Ingredients or Parts	Part No. of Ingredients or Parts	Raw Material Manufacturer Name	Part Weight (mg)	Homogeneous Material Name	CAS no.	Material Mass (% Weight)	Homogeneous Material Weight (mg)	wt % of Total unit wt
1	Die	-		3.85574	Silicon	Trade secrets	100.00%	3.85574	1.53615%
2	Die	-		3.85574	Silicon	Trade secrets	100.00%	3.85574	1.53615%
3	Substrate	200FBGA 10*15(GSD-0381)	DAEDUCK	19.80000	Barium Sulfate	7727-43-7	7.461%	1.4773369050	0.58858%
					Oxirane, 2,2'-[(3,3',5,5'-tetramethyl[1,1'-biphenyl]-4,4'-diyl)bis(oxyethylene)]bis-	85954-11-6	1.480%	0.2930989050	0.11677%
					2-[[3-Hydroxy-2,2-bis[[[(1-oxoallyl)oxy]methyl]propoxy]methyl]-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanedioldiacrylate	60506-81-2	0.733%	0.1450691550	0.05780%
					Talc (CONTAINING NO ASBESTOS FIBRES)	14807-96-6	0.733%	0.1450691550	0.05780%
					2-Benzyl-2dimethylamino-1-(4-morpholino-phenyl)-1-butanone	119313-12-1	0.733%	0.1450691550	0.05780%
					Naphtha (petroleum), heavy aromatic	64742-94-5	0.598%	0.1184238000	0.04718%
					Aluminiumhydroxide	21645-51-2	0.164%	0.0325665450	0.01297%
					1,3,5-Triazine-2,4,6-triamine	108-78-1	0.075%	0.0148029750	0.00590%
					Other Components below reportable levels	Trade secrets	17.928%	3.5497534050	1.41424%
					Glass cloth	65997-17-3	14.639%	2.8985532840	1.15480%
					Resistant Epoxy Resin	223769-10-6	9.506%	1.8822508650	0.74990%
					Heat Resistant Resin	25722-66-1	6.920%	1.3701429720	0.54587%
					Silica Filler	7631-86-9	17.368%	3.4389232020	1.37009%
					Boehmite	1318-23-6	8.661%	1.7149396770	0.68324%
					Copper	7440-50-8	3.998%	0.7916040000	0.31538%
					Zinc	7440-66-6	0.001%	0.0001584000	0.00006%
					Chromium	7440-47-3	0.000%	0.0000396000	0.00002%
					Nickel	7440-02-0	0.001%	0.0001980000	0.00008%
					Copper	7440-50-8	3.996%	0.7911288000	0.31519%
					Zinc	7440-66-6	0.001%	0.0001584000	0.00006%
					Cr(III) compounds	Trade secrets	0.000%	0.0000316800	0.00001%
					Remaining ingredients	Trade secrets	0.003%	0.0006811200	0.00027%
					Nickel	7440-02-0	3.000%	0.5940000000	0.23665%
Gold	7440-57-5	2.000%	0.3960000000	0.15777%					
4	DAF	IDU3B3M-20T	Innox	0.68951	Acryl copolymer	Trade Secret	30.77%	0.2121569231	0.08452%
					2-Propenoic acid polymer with 2-ethylhexyl 2-propenoate	25134-51-4	26.92%	0.1856373077	0.07396%
					Silicon dioxide	7631-86-9	23.08%	0.1591176923	0.06339%
					Formaldehyde polymer with (chloromethyl)oxirane and 2-methylphenol	29690-82-2	7.69%	0.0530392308	0.02113%
					Formaldehyde polymer with 2 methylphenol	25053-96-7	3.85%	0.0265196154	0.01057%
					Silane, trimethoxy(3 (oxiranylmethoxy)propyl	2530-83-8	3.85%	0.0265196154	0.01057%
					2-Ethyl-2-(hydroxymethyl)-1,3-propanediol polymer with 1,3 diisocyanatomethylbenzene and 2,2' oxybis[ethanol]	53317-61-6	3.85%	0.0265196154	0.01057%
					Acryl copolymer	Trade Secret	30.77%	0.2121569231	0.08452%
5	DAF	IDU3B3M-20T	Innox	0.68951	2-Propenoic acid polymer with 2-ethylhexyl 2-propenoate	25134-51-4	26.92%	0.1856373077	0.07396%
					Silicon dioxide	7631-86-9	23.08%	0.1591176923	0.06339%
					Formaldehyde polymer with (chloromethyl)oxirane and 2-methylphenol	29690-82-2	7.69%	0.0530392308	0.02113%
					Formaldehyde polymer with 2 methylphenol	25053-96-7	3.85%	0.0265196154	0.01057%
					Silane, trimethoxy(3 (oxiranylmethoxy)propyl	2530-83-8	3.85%	0.0265196154	0.01057%
					2-Ethyl-2-(hydroxymethyl)-1,3-propanediol polymer with 1,3 diisocyanatomethylbenzene and 2,2' oxybis[ethanol]	53317-61-6	3.85%	0.0265196154	0.01057%
					Acryl copolymer	Trade Secret	30.77%	0.2121569231	0.08452%
					2-Propenoic acid polymer with 2-ethylhexyl 2-propenoate	25134-51-4	26.92%	0.1856373077	0.07396%
6	Wire	G/W;0.7MIL 4N	MKE	0.80800	Gold	7440-57-5	99.998%	0.8079838400	0.32191%
					Beryllium	7440-41-7	0.000%	0.0000323200	0.00000%
					Calcium	7440-70-2	0.002%	0.0000129280	0.00001%
7	EMC	705VF 16*7.6	hysolem	200.26550	Silica (silicon dioxide)	60676-86-0	80.17%	160.5528514783	63.96528%
					4,4'-Bis(2,3-epoxypropoxy)-3,3',5,5'-tetramethyl(1,1'-biphenyl	85954-11-6	6.90%	13.8183195110	5.50531%
					Phenol polymer with 1,4-bis(methoxymethyl)benzene	26834-02-6	3.45%	6.9091597555	2.75265%
					Phenol polymer with 4,4'-bis(methoxymethyl)1,1'-bisphenyl	205830-20-2	4.31%	8.6314430569	3.43882%
					Formaldehyde polymer with (chloromethyl)oxirane and 2-methylphenol	29690-82-2	3.45%	6.9091597555	2.75265%
					Magnesium hydroxide	1309-42-8	0.86%	1.7222833014	0.68617%
8	Solderball	4.0Ag 0.5Cu 0.30mm	MKE	21.03600	Tin (Sn)	7440-31-5	95.36%	20.0607517448	7.99233%
					Silver	7440-22-4	4.09%	0.8598963111	0.34259%
					Cu	7440-50-8	0.55%	0.1153519442	0.04596%