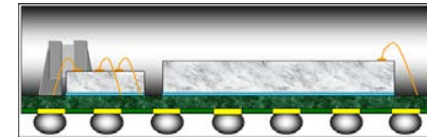




Material Declaration Sheet



- Device : ASFC4G31M-51B1N
 - Package : 11.5 x 13.0 F153 eMMC
 - Weight (mg) : 238.0mg

Material	Substances	Vendor	Type	Purpose	CAS No.	Weight (mg)	wt % of Total unit wt	Element wt (%)	PPM			
Silicon Chip 1	Silicon (Si)	SMI	SM2736 Controller	Circuit	-	1.720	0.72%	100.00%	7227			
Silicon Chip 2	Silicon (Si)	SEC	4GB Nand Flash	Circuit	-	22.400	9.41%	100.00%	94117			
Silicon Chip 3	Silicon (Si)	Dummy	Mirror die	Circuit	-	14.200	5.97%	100.00%	59664			
Mold Compound	Silica_vitreous	EM Networks	LMC705VF	Filler	60676-86-0	99.179	41.67%	87.80%	416716			
	4,4'-Bis(2,3-epoxypropoxy)-3,3',5,5'-tetramethyl(1,1'-biphenyl)			Resin	85954-11-6	3.954	1.66%	3.50%	16612			
	Phenol polymer with 1,4-bis(methoxymethyl)benzene			Resin	26834-02-6	2.824	1.19%	2.50%	11865			
	Phenol polymer with 4,4'-bis(methoxymethyl)1,1'-biphenyl			Resin	205830-20-2	2.711	1.14%	2.40%	11391			
	Formaldehyde polymer with (chloromethyl)oxirane and 2-methylphenol			Resin	29690-82-2	2.824	1.19%	2.50%	11865			
	Magnesium hydroxide			Hardener	1309-42-8	0.904	0.38%	0.80%	3797			
	Carbon black			Colorant	1333-86-4	0.565	0.24%	0.50%	2373			
							100.00%					
Substrate	Glass cloth	DDE	FBJ515304S 2H SU R.0	Base material, Core composition (CCL)	65997-17-3	7.100	2.98%	10.58%	29832			
	Copper			Base material, Core composition (CCL)	7440-50-8	11.900	5.00%	17.73%	50000			
	Epoxy			Base material, Core composition (CCL)	28906-96-9	0.900	0.38%	1.34%	3781			
	Heat Resistant Resin			Base material, Core composition (CCL)	25722-66-1	0.900	0.38%	1.34%	3781			
	Silica Filler			Base material, Core composition (CCL)	7631-86-9	1.500	0.63%	2.24%	6302			
	Resistant Epoxy Resin			Base material, Core composition (CCL)	223769-10-6	0.900	0.38%	1.34%	3781			
	Metal Hydroxide			Base material, Core composition (CCL)	1318-23-6	0.700	0.29%	1.04%	2941			
	Acrylate resin			Base material, Solder Mask composition (PSR4000-AUS308)	Trade Secret	7.000	2.94%	10.43%	29412			
	Organic pigment			Base material, Solder Mask composition (PSR4000-AUS308)	Trade Secret	0.100	0.04%	0.15%	420			
	Phthalocyanine blue			Base material, Solder Mask composition (PSR4000-AUS308)	Trade Secret	0.100	0.04%	0.15%	420			
	Talc (containing no asbestos fibers)			Base material, Solder Mask composition (PSR4000-AUS308)	14807-96-6	0.700	0.29%	1.04%	2941			
	Barium Sulfate			Base material, Solder Mask composition (PSR4000-AUS308)	7727-43-7	5.000	2.10%	7.45%	21008			
	Silica			Base material, Solder Mask composition (PSR4000-AUS308)	Trade Secret	0.100	0.04%	0.15%	420			
	2-Benzyl-2-dimethylamino-1-(4-morpholino-phenyl)-1-butanone			Base material, Solder Mask composition (PSR4000-AUS308)	119313-12-1	0.700	0.29%	1.04%	2941			
	Defoamers/leveling agent etc.			Base material, Solder Mask composition (PSR4000-AUS308)	Trade Secret	0.700	0.29%	1.04%	2941			
	Dipropylene glycol monomethyl ether			Base material, Solder Mask composition (PSR4000-AUS308)	34590-94-8	1.500	0.63%	2.24%	6302			
	3-methoxy-3-methylbutylacetate			Base material, Solder Mask composition (PSR4000-AUS308)	103429-90-9	2.900	1.22%	4.32%	12185			
	Heavy Aromatic Solvent naphtha			Base material, Solder Mask composition (PSR4000-AUS308)	64742-94-5	0.700	0.29%	1.04%	2941			
	Naphthalene			Base material, Solder Mask composition (PSR4000-AUS308)	91-20-3	0.100	0.04%	0.15%	420			
	Acrylate monomer			Base material, Solder Mask composition (CA40-AUS308)	Trade Secret	2.900	1.22%	4.32%	12185			
	Epoxy resin			Base material, Solder Mask composition (CA40-AUS308)	Trade Secret	9.000	3.78%	13.41%	37815			
	Organic filler			Base material, Solder Mask composition (CA40-AUS308)	Trade Secret	0.700	0.29%	1.04%	2941			
	Barium Sulfate			Base material, Solder Mask composition (CA40-AUS308)	7727-43-7	5.400	2.27%	8.05%	22689			
	Dipropylene glycol monomethyl ether*1-(2-methoxy-2-methylethoxy)-2-propanol			Base material, Solder Mask composition (CA40-AUS308)	34590-94-8	1.400	0.59%	2.09%	5882			
	3-methoxy-3-methylbutylacetate			Base material, Solder Mask composition (CA40-AUS308)	103429-90-9	0.700	0.29%	1.04%	2941			
	Nickel			Surface treatment	7440-02-0	2.800	1.18%	4.17%	11765			
	Gold Potassium Cyanide			Surface treatment	13967-50-5	0.700	0.29%	1.04%	2941			
										100.00%		
	Solder paste			tin	Alpha	WS693CPS	Soldering	7440-31-5	0.740	0.31%	87.00%	3107
				surfactant				-	0.026	0.01%	3.00%	107
				silver				7440-22-4	0.026	0.01%	3.00%	107
				Alkoxylated alcohol.				-	0.026	0.01%	3.00%	107
				Organic acid				-	0.026	0.01%	3.00%	107
				2,2'-iminodiethanol				111-42-2	0.004	0.00%	0.50%	18
				surfactant				-	0.004	0.00%	0.50%	18
										100.00%		
	Capacitor			Barium titanate(IV)	Taiyo Yuden	1uf/6.3V/35R/C0603/0.3T	Principle component	12047-27-7	0.260	0.11%	81.25%	1092
				Nickel				7440-02-0	0.044	0.02%	13.75%	185
				Copper				7440-50-8	0.008	0.00%	2.50%	34
				Tin				7440-31-5	0.008	0.00%	2.50%	34
Die Attach Material (Tape 1)	Epoxy	INNOX	IDU5C0-20T	Adhesive materials for die to die, die to sub UV Cure type dicing tape	29690-82-2	0.024	0.01%	20.00%	101			
	Acrylate copolymer				Trade secret	0.024	0.01%	20.00%	101			
	Hardener				Trade secret	0.012	0.01%	10.00%	50			
	Silica				7631-86-9	0.060	0.03%	50.00%	252			
							100.00%					
Die Attach Material (Tape 2)	Epoxy	INNOX	IDU0B3L-20T	Adhesive materials for die to die, die to sub UV Cure type dicing tape	29690-82-2	0.220	0.09%	20.00%	924			
	Acrylate copolymer				Trade secret	0.220	0.09%	20.00%	924			
	Hardener				Trade secret	0.110	0.05%	10.00%	462			
	Silica				7631-86-9	0.550	0.23%	50.00%	2311			
							100.00%					
Die Attach Material (Tape 3)	Epoxy	INNOX	IDU0B3L-20T	Adhesive materials for die to die, die to sub UV Cure type dicing tape	29690-82-2	0.160	0.07%	14.55%	672			
	Acrylate copolymer				Trade secret	0.160	0.07%	14.55%	672			
	Hardener				Trade secret	0.080	0.03%	7.27%	336			
	Silica				7631-86-9	0.400	0.17%	36.36%	1681			
							100.00%					
Wire	Gold	LT Metal	HP 0.8mil	Balance Material	7440-57-5	0.366	0.15%	99.99%	1538			
	Others				Trade secret	0.000	0.00%	0.01%	0.1			
							100.00%					
Solder Ball	Tin	DSH	0.3mm (Sn/3.0Ag/0.5Cu)	Remain Conductivity Improvement Heat resistance improvement	7440-31-5	15.503	6.51%	96.50%	65137			
	Silver				7440-22-4	0.482	0.20%	3.00%	2025			
	Copper				7440-50-8	0.080	0.03%	0.50%	338			
							100.00%					
Total						238.00	100.0%		1000000.0			

Alliance Memory Inc. 12815 NE 124th Street Suite D Kirkland, WA 98034 Tel: 425-898-4456
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