

# Fairchild Semiconductor Product Package Material Disclosure

Package Type	BGA 4.3 x 5.5 (FLF BGA)						
Weight of Package (grams)	9.92E-02						
Component	Material	Weight in grams	Substance in material	Wt% in component	Wt% in finished product	CAS #	Parts per Million
<b>Frame</b>	Copper Alloy	8.15E-02	Copper	96.08	82.12		821204
			Iron	2.40	78.90	7440-50-8	789013
			Zinc	0.13	1.97	7439-89-6	19709
			Nickel (plate)	0.95	0.11	7440-66-6	1068
			Palladium (plate)	0.38	0.78	7440-02-0	7801
			Gold (plate)	0.06	0.31	7440-05-3	3121
					0.05	7440-57-5	493
<b>Chip</b>	Silicon and inorganic compounds	6.20E-03			6.25		62477
			Silicon and trace metals	100.00	6.25	7440-21-3	62477
<b>Die attach</b>	Solder	2.40E-03			2.42		24185
			Tin	91.50	2.21	7440-31-5	22129
			Antimony	8.50	0.21	1309-64-4	2056
<b>Solder Balls</b>	Pb-free Solder	9.00E-03			9.07		90693
			Tin	95.20	8.63	7440-31-5	86340
			Silver	3.80	0.34	7440-22-4	3446
			Copper	1.00	0.09	7440-50-8	907
<b>Terminal Finish</b>	Pb-free Solder	1.43E-04			0.14		1441
			Nickel	95.60	0.14	7440-02-0	1378
			Palladium	3.80	0.01	7440-05-3	55
			Gold	0.60	0.00	7440-57-5	9



## Materials Disclosure Disclaimer

The information provided in this Materials Disclosure is, to our knowledge, correct. However, there is no guarantee to completeness or accuracy, as some information is derived from data sources outside the company. Also, there may not be information included in this statement regarding the minute amounts of dopant and metal materials contained within the electrically active or passive devices contained within the finished product.