



Package Chemistry Substances Analysis Table

Package Type:	LAA 064 (SnPb solder balls)
Dimension:	13 x 11 mm
Weight of Unit Package:	270 mg
Temperature rating:	260°C
MSL:	3
Assembly Location:	BKK
	Product is <u>NOT</u> RoHS Compliant

Description	Chemicals Present	CAS Number	unit weight(mg)	unit weight/package (%)	Amount (ppm)
Silicon Die	#1 Silicon	7440-21-3	8.5899	3.1832	31,832
	subtotal		8.5899	3.1832	31,832
Bond wire 0.9 mil	#1 Gold	7440-57-5	0.5697	0.2111	2,111
	subtotal		0.5697	0.2111	2,111
Die Attach	#1 Epoxy resin	Trade Secret	0.1331	0.0493	493
	#2 Polytetrafluoroethylene	9002-84-0	0.1089	0.0403	403
subtotal			0.2419	0.0897	897
Substrate	#1 Brominated Epoxy Resins	Trade Secret	5.5580	2.0597	20,597
	#2 Copper	7440-50-8	22.3279	8.2742	82,742
	#3 Gold	7440-57-5	0.3395	0.1258	1,258
	#4 Nickel	7440-02-0	1.5655	0.5801	5,801
	#5 Epoxy resin	Trade Secret	23.9026	8.8577	88,577
	#6 Silica	14808-60-7	4.7029	1.7428	17,428
	#7 SiO2 Glass Cloth	65997-17-3	20.5219	7.6049	76,049
subtotal			78.9184	29.2453	292,453
Mold compound	#1 Silica (fused)	60676-86-0	114.6114	42.4723	424,723
	#2 Carbon Black	1333-86-4	0.2590	0.0960	960
	#3 Epoxy resin	Trade Secret	13.9865	5.1831	51,831
	#4 Phosphoric organic catalyst	Trade Secret	0.6475	0.2400	2,400
subtotal			129.5044	47.9913	479,913
Solder ball	#1 Tin	7440-31-5	32.7762	12.1461	121,461
	#2 Lead	7439-92-1	19.2495	7.1334	71,334
subtotal			52.0256	19.2795	192,795
TOTAL PACKAGE			269.8500	100.0000	1,000,000

Disclaimer:

In general, four decimal values are shown. However, some variance remains from package to package. The mass values presented are thought to be accurate to within 20 percent. The report does not include materials not intentionally added to our products (impurities), or material concentrations less than 1 ppm.

Document History Page

Document Title: Material Declaration Datasheet (MDDS) - FBGA064 (LAA064) - BKK - Au Wire - Non Pb Free
Document Number: 002-12940

Rev.	ECN No.	Orig. of Change	Description of Change
**	5268246	AAC	Initial Release.