



## Device Material Content

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**Package Code:**

**MN56**

Assembly: ASEM

Size (mm): 6 x 6

Lead pitch (mm): 0.5

MSL: 3

Reflow max (°C): 260

**Package:** 56 csBGA  
**Total Device Weight** 0.08 Grams

**Products:**

LC4kZC

April, 2018

	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
<b>Die</b>	2.56%	0.0021	2.56%	0.0021	Silicon chip	7440-21-3	100.00%	Die size: 1.77 x 1.91 mm
<b>Mold Compound</b>	55.11%	0.0457	48.50%	0.0403	Silica Fused	60676-86-0	88.00%	Mold Compound: Sumitomo G770
			2.76%	0.0023	Epoxy Resin	-	5.00%	
			2.76%	0.0023	Phenol Resin	-	5.00%	
			0.96%	0.0008	Metal Hydroxide	-	1.75%	
			0.14%	0.0001	Carbon Black	1333-86-4	0.25%	
<b>D/A Epoxy</b>	0.41%	0.0003	0.33%	0.00027	Silver	7440-22-4	80.00%	Die attach epoxy: Henkel (Ablebond) 2100A
			0.08%	0.00007	Esters & resins	-	20.00%	
<b>Wire</b>	1.98%	0.0016	1.95%	0.0016	Gold (Au)	7440-57-5	98.50%	0.8 mil diameter; 1 wire per solder ball
<b>Solder Balls</b>	7.10%	0.0059	6.85%	0.0057	Tin (Sn)	7440-31-5	96.50%	SAC305
			0.21%	0.0002	Silver (Ag)	7440-22-4	3.00%	
			0.04%	0.0000	Copper (Cu)	7440-50-8	0.50%	
<b>Substrate</b>	32.83%	0.0272	21.34%	0.0177	Laminate	-	65.00%	BT Resin CCL-HL832NX-A
			3.52%	0.0029	Solder mask PSR4000 AUS 308	-	10.71%	
			6.74%	0.0056	Copper	7440-50-8	20.54%	
			1.17%	0.0010	Nickel plating	7440-02-0	3.57%	
			0.06%	0.0000	Gold plating	7440-57-5	0.18%	

**Notes:** \* 0.21% max. concentration of Bisphenol A (CAS# 80-05-7) in substrate laminate material as impurity - not intentionally added.

The values listed above are nominal values based on studies of representatives of this particular package type, and are believed to be as accurate as possible.

Constituent substances and proportions in epoxy materials are before curing.

The information provided above is representative of the package as of the date listed, and is subject to change at any time.

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