Device Material Content

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Package: **144 TQFP (1.4mm)**
Total Device Weight **1.400** **Grams**

Package Code: TN144, VN
Products: LC4k, M4A

Assembly: ASEM
Size (mm): 20 x 20 x 1.4
Lead pitch (mm): 0.5
MSL: 3
Reflow max (^oC): 260

	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
Die	1.21%	0.0169			Silicon chip	7440-21-3	100.00%	Die size: 4.00 x 5.05 mm
Mold Compound	79.42%	1.1119	4.77% 3.97% 0.16% 67.67% 2.86%	0.0667 0.0556 0.0022 0.9473 0.0400	Epoxy Resin Phenol Resin Carbon Black Silica Others	- - 1333-86-4 60676-86-0 -	6.00% 5.00% 0.20% 85.20% 3.60%	Mold Compound: Hitachi CEL9220HF
D/A Epoxy	0.15%	0.0021	0.12% 0.03%	0.00168 0.00042	Silver Esters & resins	7440-22-4 -	80.00% 20.00%	Die attach: Henkel (Ablebond) 3230
Wire	0.21%	0.0029	0.21%	0.0029	Gold (Au)	7440-57-5	100.00%	0.8 to 1.0 mil wire diameter; 1 wire for each package lead
Plating	0.79%	0.0111	0.79%	0.0111	Tin (Sn)	7440-31-5	100.00%	Plating is 100% Matte Sn; thickness is >10.2µm
Leadframe	18.22%	0.2551	17.62% 0.55% 0.03% 0.01% 0.02%	0.2467 0.0077 0.0004 0.0001 0.0002	Copper (Cu) Nickel (Ni) Silicon (Si) Magnesium (Mg) Silver (Ag)	7440-50-8 7440-02-0 7440-21-3 7439-95-4 7440-22-4	96.70% 3.01% 0.17% 0.03% 0.09%	C7025

Notes:
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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Rev. C