Semiconductor Device Type:	RWC	325_TFBGA_11x11x1.35mm_SAC105			
Basic Substance	**CAS Number**	**"Contained In" Sub-Component**	**% Total Weight**	**mg/part**	**ppm**
Epoxy Resin	Proprietary	Mold Compound	2.24	7.99	22400
Phenol Resin A	9003-35-4	Mold Compound	1.03	3.69	10345
Phenol Resin B	Proprietary	Mold Compound	1.03	3.69	10345
Silica, vitreous	60676-86-0	Mold Compound	21.20	75.61	211971
Silicon dioxide	7631-86-9	Mold Compound	6.20	22.13	62041
Aluminium and its compounds	Proprietary	Mold Compound	2.58	9.22	25848
Carbon Black	1333-86-4	Mold Compound	0.17	0.61	1710
Sillicon	Proprietary	Die	6.66	23.75	66583
Copper	7440-50-8	Copper Pillar	0.10	0.36	1009
Tin	7440-31-5	Copper Pillar	0.10	0.35	981
Silver	7440-22-4	Copper Pillar	0.00	0.01	28
Tin	7440-31-5	Solder Ball	9.20	32.83	92038
Silver	7440-22-4	Solder Ball	0.29	1.02	2860
Copper	7440-50-8	Solder Ball	0.05	0.17	477
Glass, oxide	65997-17-3	Laminate - Core	7.25	25.87	72526
Silicon dioxide	7631-86-9	Laminate - Core	3.44	12.28	34427
Bismaleimide-Triazine resin	Proprietary	Laminate - Core	1.77	6.32	17718
Epoxy resin	Proprietary	Laminate - Core	1.23	4.39	12307
Other substances	Proprietary	Laminate - Core	0.95	3.40	9532
Glass, oxide	65997-17-3	Laminate - Prepreg	3.62	12.93	36249
Silicon dioxide	7631-86-9	Laminate - Prepreg	1.72	6.14	17213
Bismaleimide-Triazine resin	Proprietary	Laminate - Prepreg	0.89	3.16	8859
Epoxy resin	Proprietary	Laminate - Prepreg	0.61	2.19	6140
Other substances	Proprietary	Laminate - Prepreg	0.48	1.70	4766
Cured Resin	Proprietary	Laminate - Solder Mask	0.80	2.87	8046
Colorant	147-14-8	Laminate - Solder Mask	0.00	0.01	28
Organic pigment	Proprietary	Laminate - Solder Mask	0.00	0.01	28
Silicon dioxide	7631-86-9	Laminate - Solder Mask	0.13	0.46	1290
Barium sulfate	7727-43-7	Laminate - Solder Mask	0.13	0.46	1290
Talc	14807-96-6	Laminate - Solder Mask	0.16	0.57	1598
Aluminium hydroxide	21645-51-2	Laminate - Solder Mask	0.01	0.02	56
Antifoamer and Leveling agent	Proprietary	Laminate - Solder Mask	0.06	0.20	561
Copper	7440-50-8	Laminate - Copper Foil	22.92	81.77	229240
p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	5026-74-4	Underfill	0.33	1.16	3252
Bisphenol F type liquid epoxy resin	9003-36-5	Underfill	0.33	1.16	3252
Bisphenol A type liquid epoxy resin	25068-38-6	Underfill	0.07	0.26	729
Amine type hardener	Proprietary	Underfill	0.22	0.79	2215
Carbon black	1333-86-4	Underfill	0.01	0.05	140
Silicon dioxide	60676-86-0	Underfill	1.92	6.84	19176
Additives	Proprietary	Underfill	0.07	0.26	729
		TOTALS:	**100.00**	**356.70**	**1,000,000**

356.70 mg Total Mass

		Package Homogeneous Materials		
122.94	**(mg) Total**	**Mold Compound**	**% of Total Weight**	**34.47**
	Epoxy Resin	Proprietary	6.50	
	Phenol Resin A	9003-35-4	3.00	
	Phenol Resin B	Proprietary	3.00	
	Silica, vitreous	60676-86-0	61.50	
	Silicon dioxide	7631-86-9	18.00	
	Aluminium and its compounds	Proprietary	7.50	
	Carbon Black	1333-86-4	0.50	
		Total	**100.00**	
23.75	**(mg) Total**	**Die**	**% of Total Weight**	**6.66**
	Sillicon	Proprietary	100.00	
		Total	**100.00**	
0.72	**(mg) Total**	**Copper Pillar**	**% of Total Weight**	**0.20**
	Copper	7440-50-8	50.00	
	Tin	7440-31-5	48.61	
	Silver	7440-22-4	1.39	
		Total	**100.00**	
34.02	**(mg) Total**	**Solder Ball**	**% of Total Weight**	**9.54**
	Tin	7440-31-5	96.50	
	Silver	7440-22-4	3.00	
	Copper	7440-50-8	0.50	
		Total	**100.00**	
52.26	**(mg) Total**	**Laminate - Core**	**% of Total Weight**	**14.65**
	Glass, oxide	65997-17-3	49.50	
	Silicon dioxide	7631-86-9	23.50	
	Bismaleimide-Triazine resin	Proprietary	12.09	
	Epoxy resin	Proprietary	8.40	
	Other substances	Proprietary	6.51	
		Total	**100.00**	
26.12	**(mg) Total**	**Laminate - Prepreg**	**% of Total Weight**	**7.32**
	Glass, oxide	65997-17-3	49.50	
	Silicon dioxide	7631-86-9	23.51	
	Bismaleimide-Triazine resin	Proprietary	12.10	
	Epoxy resin	Proprietary	8.38	
	Other substances	Proprietary	6.51	
		Total	**100.00**	
4.60	**(mg) Total**	**Laminate - Solder Mask**	**% of Total Weight**	**1.29**
	Cured Resin	Proprietary	62.39	
	Colorant	147-14-8	0.22	
	Organic pigment	Proprietary	0.22	
	Silicon dioxide	7631-86-9	10.00	
	Barium sulfate	7727-43-7	10.00	
	Talc	14807-96-6	12.39	
	Aluminium hydroxide	21645-51-2	0.43	
	Antifoamer and Leveling agent	Proprietary	4.35	
		Total	**100.00**	
81.77	**(mg) Total**	**Laminate - Copper Foil**	**% of Total Weight**	**22.92**
	Copper	7440-50-8	100.00	
		Total	**100.00**	
10.52	**(mg) Total**	**Underfill**	**% of Total Weight**	**2.95**
	p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	5026-74-4	11.03	
	Bisphenol F type liquid epoxy resin	9003-36-5	11.03	
	Bisphenol A type liquid epoxy resin	25068-38-6	2.47	
	Amine type hardener	Proprietary	7.51	
	Carbon black	1333-86-4	0.48	
	Silicon dioxide	60676-86-0	65.02	
	Additives	Proprietary	2.47	
356.7		**Total**	**100.00**	100.00

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