MICROCHIP

Semiconductor Device Type: **G5X-SOIC-20-.300in-MatteTin**

Sub-Component	Basic Substance	CAS Number	% Total Weight	mg/part	ppm
Die	Silicon	7440-21-3	2.07	11.62	20656
Lead Frame	Copper	7440-50-8	29.40	165.32	293979
Lead Frame	Iron	7439-89-6	0.67	3.76	6682
Lead Frame	Phosphorus	7723-14-0	0.03	0.17	304
Lead Frame	Zinc	7440-66-6	0.03	0.17	304
Lead Frame	Nickel	7440-02-0	0.24	1.37	2430
Lead Frame	Palladium	7440-05-3	0.00	0.03	49
Die Attach Epoxy	Silver	7440-22-4	0.31	1.76	3127
Die Attach Epoxy	Formaldehyde, polymer with (chloromethyl)oxirane and phenol	9003-36-5	0.01	0.08	146
Die Attach Epoxy	Fatty acids, C18-unsatd., dimers, polymers with epichlorohydrin	68475-94-5	0.01	0.08	146
Die Attach Epoxy	γ-Butyrolactone	96-48-0	0.00	0.02	37
Die Attach Epoxy	Epoxy Resin	Trade Secret	0.00	0.02	37
Die Attach Epoxy	Poly[oxy(methyl-1,2-ethanediyl)], a-(2-aminomethylethyl)-w-(2-aminomethylethoxy)-	9046-10-0	0.01	0.04	73
Die Attach Epoxy	Copper oxide	1317-38-0	0.01	0.04	73
Die Attach Epoxy	1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8	0.00	0.01	18
Bonding Wire	Gold	7440-57-5	0.14	0.77	1363
Mold Compound	Epoxy Resin A	Trade Secret	3.32	18.67	33200
Mold Compound	Epoxy Resin B	29690-82-2	1.33	7.47	13280
Mold Compound	Phenol Resin	Trade Secret	1.33	7.47	13280
Mold Compound	Silica(Amorphous)	60676-86-0	59.76	336.06	597604
Mold Compound	Carbon Black	1333-86-4	0.66	3.73	6640
External Plating	Tin	7440-31-5	0.66	3.70	6571
		TOTALS:	**100.00**	**562.34**	**1,000,000**

562.34 mg Total Mass

Package Homogeneous Materials

11.62	**(mg) Total**	**Die**	**% of Total Weight**	**2.07**
	Silicon	7440-21-3	100.00	
		Total	**100.00**	
170.81	**(mg) Total**	**Lead Frame**	**% of Total Weight**	**30.37**
	Copper	7440-50-8	96.78	
	Iron	7439-89-6	2.20	
	Phosphorus	7723-14-0	0.10	
	Zinc	7440-66-6	0.10	
	Nickel	7440-02-0	0.80	
	Palladium	7440-05-3	0.02	
		Total	**100.00**	
2.06	**(mg) Total**	**Die Attach Epoxy**	**% of Total Weight**	**0.37**
	Silver	7440-22-4	85.50	
	Formaldehyde, polymer with (chloromethyl)oxirane and phenol	9003-36-5	4.00	
	Fatty acids, C18-unsatd., dimers, polymers with epichlorohydrin	68475-94-5	4.00	
	γ-Butyrolactone	96-48-0	1.00	
	Epoxy Resin	Trade Secret	1.00	
	Poly[oxy(methyl-1,2-ethanediyl)], a-(2-aminomethylethyl)-w-(2-aminomethylethoxy)-	9046-10-0	2.00	
	Copper oxide	1317-38-0	2.00	
	1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8	0.50	
		Total	**100.00**	
0.77	**(mg) Total**	**Bonding Wire**	**% of Total Weight**	**0.14**
	Gold	7440-57-5	100.00	
		Total	**100.00**	
373.40	**(mg) Total**	**Mold Compound**	**% of Total Weight**	**66.40**
	Epoxy Resin A	Trade Secret	5.00	
	Epoxy Resin B	29690-82-2	2.00	
	Phenol Resin	Trade Secret	2.00	
	Silica(Amorphous)	60676-86-0	90.00	
	Carbon Black	1333-86-4	1.00	
		Total	**100.00**	
3.70	**(mg) Total**	**External Plating**	**% of Total Weight**	**0.66**
	Tin	7440-31-5	100.00	
562.34		**Total**	**100.00**	100.00

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