



Semiconductor Device Type: D5X-VQFN-16-4x4x-0.1mm-MatteTin						Package Homogeneous Materials				
Sub-Component	Basic Substance	CAS Number	% Total Weight	mg/part	ppm	19.49	(mg) Total	Mold Compound	% of Total Weight	46.75
Mold Compound	Epoxy Resin	Trade Secret	3.27	1.36	32725		Epoxy Resin	Trade Secret	7.00	
Mold Compound	Phenol Resin	Trade Secret	1.40	0.58	14025		Phenol Resin	Trade Secret	3.00	
Mold Compound	Silica (Amorphous) A	60676-86-0	37.40	15.60	374000		Silica (Amorphous) A	60676-86-0	80.00	
Mold Compound	Silica (Amorphous) B	7631-86-9	3.27	1.36	32725		Silica (Amorphous) B	7631-86-9	7.00	
Mold Compound	Metal Hydroxide	Trade Secret	1.17	0.49	11688		Metal Hydroxide	Trade Secret	2.50	
Mold Compound	Carbon Black	1333-86-4	0.23	0.10	2338		Carbon Black	1333-86-4	0.50	
Leadframe	Copper	7440-50-8	38.90	16.22	388992	Total 100.00				
Leadframe	Iron	7439-89-6	0.99	0.41	9876					
Leadframe	Phosphorus	7723-14-0	0.05	0.02	504	16.81	(mg) Total	Leadframe	% of Total Weight	40.31
Leadframe	Zinc	7440-66-6	0.05	0.02	504		Copper	7440-50-8	96.50	
Leadframe	Silver	7440-22-4	0.32	0.13	3225		Iron	7439-89-6	2.45	
Die Attach Epoxy	Silver	7440-22-4	1.28	0.53	12812		Phosphorus	7723-14-0	0.13	
Die Attach Epoxy	exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate	7534-94-3	0.01	0.01	131		Zinc	7440-66-6	0.13	
Die Attach Epoxy	Dodecyl acrylate	2156-97-0	0.01	0.01	131		Silver	7440-22-4	0.80	
Die Attach Epoxy	1,6-Hexanediol diacrylate	13048-33-4	0.00	0.00	13	Total 100.00				
Die Attach Epoxy	1-Methyl-2-pyrrolidone	872-50-4	0.00	0.00	13	0.55	(mg) Total	Die Attach Epoxy	% of Total Weight	1.31
Bonding Wire	Copper	7440-50-8	0.77	0.32	7663		Silver	7440-22-4	97.80	
Bonding Wire	Palladium	7440-05-3	0.02	0.01	198		exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate	7534-94-3	1.00	
Bonding Wire	Gold	7440-57-5	0.00	0.00	40		Dodecyl acrylate	2156-97-0	1.00	
Die	Doped Silicon	7440-21-3	7.89	3.29	78900		1,6-Hexanediol diacrylate	13048-33-4	0.10	
Plating on External Leads	Tin	7440-31-5	2.95	1.23	29500		1-Methyl-2-pyrrolidone	872-50-4	0.10	
TOTALS: 41.70 mg Total Mass			100.00	41.70	1,000,000	Total 100.00				
The information contained in this Material Content Declaration (MCD) consists of package-level information and is not part number specific. This information is considered to be sufficiently representative of all part numbers for the package type.						0.33	(mg) Total	Bonding Wire	% of Total Weight	0.79
							Copper	7440-50-8	97.00	
							Palladium	7440-05-3	2.50	
							Gold	7440-57-5	0.50	
						Total 100.00				
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							Doped Silicon	7440-21-3	100.00	
						Total 100.00				
						1.23	(mg) Total	Plating on External Leads	% of Total Weight	2.95
							Tin	7440-31-5	100.00	
Microchip Technology Incorporated believes the information in this MCD is true and correct to the best of its knowledge and belief, as of the date listed in this form. Microchip Technology Incorporated cannot guarantee the completeness and accuracy of data in this form because it has been compiled based on the ranges provided in Safety Data Sheets provided by raw material suppliers. Supplier information is often protected from disclosure as trade secrets and some information may not have been provided by subcontract assemblers and raw material suppliers. Information is provided only as estimates of the average weight of these parts. These estimates do not include trace levels of dopants, impurities, metals, and non-metallic materials which may be contained within silicon devices (silicon IC) or the finished parts.						41.70	Total	Total	100.00	100.00
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