



Semiconductor Device Type: Y6X 48 VQFN 7x7x1.0mm Matte Tin				Termination Base Alloy: Copper Alloy (Cu)			Package Homogeneous Materials: 8.1 Electronics (e.g. pc boards, displays)			J-STD-609A Product Marking and/or Pkg. Labeling e3		
Basic Substance	CAS Number	Contained In Sub-Component	% Total Weight	mg/part	ppm	(mg) Total	Mold Compound	% of Total Weight	50.51			
Silica, fused	60676-86-0	Mold Compound	45.459	59.097	454,590	65.66	Silica, fused	60676-86-0	90.00			
Epoxy Resin	Trade Secret	Mold Compound	2.450	3.185	24,497		Epoxy Resin	Trade Secret	4.85			
Phenolic Resin	Trade Secret	Mold Compound	2.450	3.185	24,497		Phenolic Resin	Trade Secret	4.85			
Carbon Black	1333-86-4	Mold Compound	0.152	0.197	1,515		Carbon Black	1333-86-4	0.30			
<b>Total</b>							<b>100.00</b>					
Copper	7440-50-8	Lead Frame	42.275	54.958	422,753	57.53	<b>Total</b>		44.25			
Iron	7439-89-6	Lead Frame	1.040	1.352	10,399		Copper	7440-50-8		95.54		
Silver	7440-22-4	Lead Frame	0.843	1.096	8,430		Iron	7439-89-6		2.35		
Zinc	7440-66-6	Lead Frame	0.055	0.072	553		Silver	7440-22-4		1.91		
Phosphorous	7723-14-0	Lead Frame	0.037	0.047	365		Zinc	7440-66-6		0.13		
Silver	7440-22-4	Die Attach	0.190	0.247	1,900		Phosphorous	7723-14-0		0.08		
Carbocyclic acrylate	Trade Secret	Die Attach	0.038	0.049	375		<b>Total</b>			<b>100.00</b>		
Bismaleimide resin	Trade Secret	Die Attach	0.008	0.010	75		0.33	<b>(mg) Total</b>		0.25		
Acrylate	Trade Secret	Die Attach	0.015	0.020	150			Silver			7440-22-4	76.00
Silicon	7440-21-3	Chip (Die)	2.580	3.354	25,800			Carbocyclic acrylate			Trade Secret	15.00
Gold	7440-57-5	Wire Bond	0.220	0.286	2,200	Bismaleimide resin		Trade Secret	3.00			
Tin	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	2.190	2.847	21,900	Acrylate		Trade Secret	6.00			
<b>TOTALS:</b>			<b>100.000</b>	<b>130.000</b>	<b>1,000,000</b>	<b>Total</b>		<b>100.00</b>				
<b>0.1300 g Total Mass</b>												
This semiconductor device and its homogenous materials comply with EU Directives: 2002/95/EC (27 January 2003) & Directive 2011/65/EU (08 June 2011) and 2015/863/EU (31 March 2015) and 2000/53/EC and 2016/774/EU (End-of-Life Vehicles (ELV) without exemption (zero)												
Compliance with the above EU Directives has been verified via internal design controls, supplier declarations, and/or analytical test data.												
If a chemical substance is absent from the list above, the chemical substance is NOT an intentional ingredient in the semiconductor device and, to the best of Microchip Technology Incorporated's knowledge and belief as of the date of this document, there is no credible reason to believe that the unavoidable impurity concentration of the chemical substance, if any, is not below the threshold of regulatory concern for any regulatory scheme world-wide.												
Molding compounds used by Microchip meet the UL94 V0 flammability standard for plastics. You can access the UL IQTM family of databases to obtain a test report at												
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Assembled package referenced above is EU REACH compliant based on the latest SVHC candidate list of ECHA which can be found at <a href="http://echa.europa.eu/web/guest/candidate-list-table">http://echa.europa.eu/web/guest/candidate-list-table</a>												
						3.35	<b>Total (mg)</b>	<b>Chip (Die)</b>	<b>% of Total Weight</b>	2.58		
							Doped Silicon	7440-21-3	100.00			
						<b>Total</b>		<b>100.00</b>				
						0.29	<b>(mg) Total</b>	<b>Wire Bond</b>	<b>% of Total Weight</b>	0.22		
							Gold	7440-57-5	100.00			
						<b>Total</b>		<b>100.00</b>				
						2.85	<b>(mg) Total</b>	<b>Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour</b>	<b>% of Total Weight</b>	2.19		
							Tin	7440-31-5	100.00			
						<b>Total</b>		<b>100.00</b>				

130.00

100.00