



Semiconductor Device Type: *CNA 32 TQFP 07x07x1.2mm MatteTin				Termination Base Alloy: Copper Alloy (Cu)			Package Homogeneous Materials			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			
Silica, vitreous (or fused)	60676-86-0	Mold Compound	67.873	94.275	678,725	110.91	Silica, vitreous (or fused)	60676-86-0	85.00	79.85	
Epoxy Resin	Trade Secret	Mold Compound	6.947	9.649	69,470		Epoxy Resin	Trade Secret	8.70		
Phenolic Resin	Trade Secret	Mold Compound	4.791	6.655	47,910		Phenolic Resin	Trade Secret	6.00		
Carbon Black	1333-86-4	Mold Compound	0.240	0.333	2,396		Carbon Black	1333-86-4	0.30		
			Total				100.00				
Copper	7440-50-8	Lead Frame	9.984	13.867	99,837	14.52	(mg) Total			10.45	
Iron	7439-89-6	Lead Frame	0.246	0.341	2,456		Lead Frame				
Silver	7440-22-4	Lead Frame	0.199	0.277	1,991		% of Total Weight				
Zinc	7440-66-6	Lead Frame	0.013	0.018	131		Copper	7440-50-8	95.54		
Phosphorous	7723-14-0	Lead Frame	0.009	0.012	86		Iron	7439-89-6	2.35		
Silver	7440-22-4	Die Attach	0.585	0.813	5,850	Silver	7440-22-4	1.91	1.04	0.75	
Epoxy Resin	Trade Secret	Die Attach	0.165	0.229	1,650	Zinc	7440-66-6	0.13			
Silicon	7440-21-3	Chip (Die)	7.500	10.418	75,000	Phosphorous	7723-14-0	0.08			
Gold	7440-57-5	Wire Bond	0.198	0.275	1,980	Total					
Palladium	7440-05-3	Wire Bond	0.002	0.003	20	100.00					
Tin	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	1.250	1.736	12,500	(mg) Total			Die Attach		
TOTALS:			100.000	138.900	1,000,000	Total			100.00		
0.1389 g Total Mass											
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 2002/53/EC (End-of-Life Vehicles (ELV) without exemption (zero)						10.42		Total (mg)	Chip (Die)	% of Total Weight	7.50
Compliance with the above EU Directives has been verified via internal design controls, supplier declarations, and /or analytical test data.								Doped Silicon	7440-21-3	100.00	
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.								Total			100.00
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 http://ul.com/global/eng/pages/offering/industries/chemicals/plastics/						0.28		(mg) Total	Wire Bond	% of Total Weight	0.20
The protective "tubes" in which the specific product is shipped are made from polyvinyl chloride (PVC) plastic. "Window envelopes" used to hold the packing slip on the outer box and certain "reels" may be made from PVC plastic.								Gold	7440-57-5	99.00	
Microchip Technology Incorporated believes the information in this form concerning substances restricted by RoHS in Microchip Technology Incorporated's semiconductor devices in their original packing materials 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 Material 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 and the average weight of anticipated significant toxic metals components. These estimates do not include trace levels of dopants, metals, and non-metal materials contained within silicon devices (silicon IC) in the finished parts.								Palladium	7440-05-3	1.00	
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Microchip disclaims any duty to notify users of updates or changes to Material Content Declarations and shall not be liable for any damages, direct or indirect, consequential or otherwise, suffered by users or third parties as a result of the users' reliance on the information in Material Content Declarations (MCD) or independent third party test reports (SGS) or of this Certificate of Compliance for semiconductor products.						1.74		(mg) Total	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	% of Total Weight	1.25
Assembled package referenced above is EU REACH compliant based on the latest SVHC candidate list of ECHA which can be found at http://echa.europa.eu/web/guest/candidate-list-table								Tin	7440-31-5	100.00	
								Total			100.00
						138.900					100.00