



Semiconductor Device Type: CTA 064 TQFP 10x10x1.0mm MatteTin						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							
Silica Fused	60676-86-0	Mold Compound	58.329	152.413	583,288	172.67		(mg) Total	Mold Compound	% of Total Weight	66.08	
Epoxy Resin	Trade Secret	Mold Compound	4.123	10.774	41,234			Silica Fused		60676-86-0	88.27	
Phenol Resin	Trade Secret	Mold Compound	3.430	8.961	34,296			Epoxy Resin		Trade Secret	6.24	
Carbon Black	1333-86-4	Mold Compound	0.198	0.518	1,982			Phenol Resin		Trade Secret	5.19	
Copper	7440-50-8	Lead Frame	27.666	72.291	276,659			Carbon Black		1333-86-4	0.30	
Tin	7440-31-5	Lead Frame	0.071	0.186	710			Total		100.00		
Silver	7440-22-4	Lead Frame	0.541	1.414	5,410	74.21		(mg) Total	Lead Frame	% of Total Weight	28.40	
Zinc	7440-66-6	Lead Frame	0.051	0.134	511			Copper		7440-50-8	97.42	
Chromium	7440-47-3	Lead Frame	0.071	0.186	710			Tin		7440-31-5	0.25	
Silver	7440-22-4	Die Attach	0.562	1.467	5,616			Silver		7440-22-4	1.91	
Epoxy Resin	Trade Secret	Die Attach	0.158	0.414	1,584			Zinc		7440-66-6	0.18	
Silicon	7440-21-3	Chip (Die)	2.000	5.226	20,000			Chromium		7440-47-3	0.25	
Gold	7440-57-5	Wire Bond	0.800	2.090	8,000	1.88		(mg) Total	Die Attach	% of Total Weight	0.72	
Tin	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	2.000	5.226	20,000			Silver		7440-22-4	78.00	
TOTALS:			100.000	261.300	1,000,000			Epoxy Resin		Trade Secret	22.00	
0.2613 g Total Mass								Total		100.00		
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)						5.23		Total (mg)	Chip (Die)	% of Total Weight	2.00	
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/						2.09		(mg) Total	Wire Bond	% of Total Weight	0.80	
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	100.00	
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.								Total		100.00		
Microchip Technology Incorporated does not provide any warranty, express or implied, with respect to the information provided in this declaration. The exclusive, limited product warranties provided by Microchip Technology Incorporated and its subsidiaries are contained in Microchip's standard terms and conditions of sale. These are provided in Microchip's quotations, sales order acknowledgement, and invoices.						5.23		(mg) Total	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	% of Total Weight	2.00	
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.								Tin		7440-31-5	100.00	
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								Total		100.00		

261.30

100.00