



Semiconductor Device Type: N9A 008 UQFN 2x2x0.6mm Matte Tin				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	45.90				
Silica Fused	60676-86-0	Mold Compound	41.310	3.553	413.100	3.95	Silica Fused	60676-86-0	90.00				
Epoxy Resin	Trade Secret	Mold Compound	2.226	0.191	22.262		Epoxy Resin	Trade Secret	4.85				
Phenol Resin	Trade Secret	Mold Compound	2.226	0.191	22.262		Phenol Resin	Trade Secret	4.85				
Carbon Black	1333-86-4	Mold Compound	0.138	0.012	1.377		Carbon Black	1333-86-4	0.30				
Copper	7440-50-8	Lead Frame	44.289	3.809	442.890		Total			100.00			
Iron	7439-89-6	Lead Frame	1.045	0.090	10.447	3.91	(mg) Total			45.42			
Zinc (Metal)	7440-66-6	Lead Frame	0.068	0.006	681		Copper	7440-50-8	97.51				
Phosphorous	7723-14-0	Lead Frame	0.018	0.002	182		Iron	7439-89-6	2.30				
Tin	7440-31-5	Bump Attach	0.241	0.021	2.413		Zinc (Metal)	7440-66-6	0.15				
Silver	7440-22-4	Bump Attach	0.008	0.001	75		Phosphorous	7723-14-0	0.04				
Copper	7440-50-8	Bump Attach	0.001	0.000	13	Total			100.00				
Silicon	7440-21-3	Chip (Die)	5.300	0.456	53.000	0.02	(mg) Total			0.25			
Copper	7440-50-8	Cu Pillar bump	1.134	0.097	11.336		Tin	7440-31-5	96.50				
Tin	7440-31-5	Cu Pillar bump	0.163	0.014	1.626		Silver	7440-22-4	3.00				
Silver	7440-22-4	Cu Pillar bump	0.004	0.000	38		Copper	7440-50-8	0.50				
Tin	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	1.830	0.157	18.300		Total				100.00		
TOTALS:			100.000	8.600	1,000,000	0.46	Total (mg)			5.30			
0.0086 g Total Mass							Doped Silicon	7440-21-3	100.00				
						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 2000/53/EC and 2016/774/EU (End-of-Life Vehicles (ELV) without exemption (zero)						0.11				(mg) Total	Cu Pillar bump	% of Total Weight	1.30
Compliance with the above EU Directives has been verified via internal design controls, supplier declarations, and /or analytical test data.						Copper				7440-50-8	87.20		
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.						Tin				7440-31-5	12.51		
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://iq.ul.com/plastics/						Silver				7440-22-4	0.29		
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.						Total			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.						0.16				(mg) Total	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	% of Total Weight	1.83
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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.						Total			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						8.600				100.000			