



Semiconductor Device Type: CT / OT / OTY (C7X) 005 SOT-23 Matte Tin			Termination Base Alloy: Copper Alloy (Cu)			Package Homogeneous Materials: 8.1 Electronics (e.g. pc boards, displays)			JEDEC 97 Product Marking and/or Pkg. Labeling e3	
Basic Substance	CAS Number	Contained in Sub-Component	% Total Weight	mg/part	ppm	12.77	(mg) Total	Mold Compound	% of Total Weight	79.8
Silica, vitreous	60676-86-0	Mold Compound	69.354	11.097	693,542		Silica, vitreous	60676-86-0	86.91	
Epoxy Resin	Trade Secret	Mold Compound	6.121	0.979	61,207		Epoxy Resin	Trade Secret	7.67	
Phenolic Resin	Trade Secret	Mold Compound	4.078	0.652	40,778		Phenolic Resin	Trade Secret	5.11	
Carbon Black	1333-86-4	Mold Compound	0.247	0.040	2,474		Carbon Black	1333-86-4	0.31	
Copper	7440-50-8	Lead Frame	10.031	1.605	100,314		Total			100.00
Iron	7439-89-6	Lead Frame	0.247	0.039	2,468	1.68	(mg) Total	Lead Frame	% of Total Weight	10.5
Silver	7440-22-4	Lead Frame	0.200	0.032	2,000		Copper	7440-50-8	95.54	
Zinc	7440-66-6	Lead Frame	0.013	0.002	131		Iron	7439-89-6	2.35	
Phosphorous	7723-14-0	Lead Frame	0.009	0.001	87		Silver	7440-22-4	1.91	
Silver (Ag)	7440-22-4	Die Attach	0.563	0.090	5,625		Zinc	7440-66-6	0.13	
Modified Epoxy Resin	13561-08-5	Die Attach	0.105	0.017	1,050		Phosphorous	7723-14-0	0.08	
Diglycidylether of bisphenol-F	54208-63-8	Die Attach	0.056	0.009	563		Total			100.00
Modified Amine	827-43-0	Die Attach	0.026	0.004	263	0.12	(mg) Total	Die Attach	% of Total Weight	0.75
Silicon	7440-21-3	Chip (Die)	7.500	1.200	75,000		Silver (Ag)	7440-22-4	75.00	
Copper	7440-50-8	Wire Bond palladium coated copper (CuPd)	0.197	0.031	1,965		Modified Epoxy Resin	13561-08-5	14.00	
Palladium	7440-05-3	Wire Bond palladium coated copper (CuPd)	0.004	0.001	35		Diglycidylether of bisphenol-F	54208-63-8	7.50	
Tin	7440-31-5	Plating on external leads (pins) - Matte Tin / annealed at 150°C for 1 hour	1.250	0.200	12,500		Modified Amine	827-43-0	3.50	
0.0160 g Total Mass			TOTALS:	100.000	16.000	1,000,000	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)						1.20	Total (mg)	Chip (Die)	% of Total Weight	7.5
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/						0.03	(mg) Total	Wire Bond - Copper, palladium coated (CuPd)	% of Total Weight	0.2
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.							Copper	7440-50-8	98.25	
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	1.75	
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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.						0.20	(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	
						16.000				100.000