



Semiconductor Device Type: D7A 003 SOT-23 NiPdAu			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 e4
Basic Substance	CAS Number	"Contained In" Sub-Component	% Total Weight	mg/part	ppm				
Silica, vitreous	60676-86-0	Mold Compound	49.530	4.705	495,295	5.54 (mg) Total			58.27
Epoxy Resin	Trade Secret	Mold Compound	3.569	0.339	35,690	Mold Compound			
Phenolic Resin	Trade Secret	Mold Compound	3.569	0.339	35,690	% of Total Weight			
Epoxy, Cresol Novolac	29690-82-2	Mold Compound	1.428	0.136	14,276	Silica, vitreous			85.00
Carbon Black	1333-86-4	Mold Compound	0.175	0.017	1,748	Epoxy Resin			6.13
Copper	7440-50-8	Lead Frame	34.454	3.273	344,539	Phenolic Resin			6.13
Iron	7439-89-6	Lead Frame	0.814	0.077	8,144	Epoxy, Cresol Novolac			2.45
Phosphorous	7723-14-0	Lead Frame	0.089	0.008	885	Carbon Black			0.30
Zinc (Metal)	7440-66-6	Lead Frame	0.053	0.005	531	Total			100.00
Silver	7440-22-4	Die Attach	0.968	0.092	9,675	3.36 (mg) Total			35.41
Epoxy Resin	9003-36-5	Die Attach	0.323	0.031	3,225	Lead Frame			
Silicon	7440-21-3	Chip (Die)	3.300	0.314	33,000	Copper			97.30
Gold	7440-57-5	Wire Bond	0.410	0.039	4,100	Iron			2.30
Nickel	7440-02-0	Plating on external leads (pins)	1.188	0.113	11,880	Phosphorous			0.25
Palladium	7440-05-3	Plating on external leads (pins)	0.066	0.006	660	Zinc (Metal)			0.15
Gold	7440-57-5	Plating on external leads (pins)	0.066	0.006	660	Total			100.00
TOTALS:			100.000	9.500	1,000,000	0.12 (mg) Total			1.29
0.0095 g Total Mass						Die Attach			
						Silver			75.00
						Epoxy Resin			25.00
						Total			100.00
						0.31 Total (mg)			3.30
						Chip (Die)			
						Doped Silicon			100.00
						Total			100.00
						0.04 (mg) Total			0.41
						Wire Bond			
						Gold			100.00
						Total			100.00
						0.13 (mg) Total			1.32
						Plating on external leads (pins)			
						Nickel			90.00
						Palladium			5.00
						Gold			5.00
						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 2002/53/EC (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 <http://ul.com/global/eng/pages/offering/industries/chemicals/plastics/>

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.

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.

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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 <http://echa.europa.eu/web/guest/candidate-list-table>

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						Total			100.00
						0.31 Total (mg)			3.30
						Chip (Die)			
						Doped Silicon			100.00
						Total			100.00
						0.04 (mg) Total			0.41
						Wire Bond			
						Gold			100.00
						Total			100.00
						0.13 (mg) Total			1.32
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						Nickel			90.00
						Palladium			5.00
						Gold			5.00
						Total			100.00

9.50

100.00