



Semiconductor Device Type: YM5 (6BX) 005 SOT-23 NiPdAu			Termination Base Alloy: Copper Alloy (Cu)			Package Homogeneous Materials: 8.1 Electronics (e.g. pc boards, displays)			J-STD-609 Product Marking and/or Pkg. Labeling e4																								
Basic Substance	CAS Number	"Contained In" Sub-Component	% Total Weight	mg/part	ppm	8.40 (mg) Total	Mold Compound	% of Total Weight	48.28																								
Silica, vitreous (or fused)	60676-86-0	Mold Compound	41.038	7.141	410,380	<table border="1"> <tr> <td>Silica, vitreous (or fused)</td> <td>60676-86-0</td> <td>85.00</td> </tr> <tr> <td>Epoxy Resin</td> <td>Trade Secret</td> <td>8.70</td> </tr> <tr> <td>Phenolic Resin</td> <td>Trade Secret</td> <td>6.00</td> </tr> <tr> <td>Carbon Black</td> <td>1333-86-4</td> <td>0.30</td> </tr> <tr> <td><b>Total</b></td> <td></td> <td><b>100.00</b></td> </tr> </table>	Silica, vitreous (or fused)	60676-86-0	85.00	Epoxy Resin	Trade Secret	8.70	Phenolic Resin	Trade Secret	6.00	Carbon Black	1333-86-4	0.30	<b>Total</b>		<b>100.00</b>												
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Epoxy Resin	Trade Secret	Mold Compound	4.200	0.731	42,004																												
Phenolic Resin	Trade Secret	Mold Compound	2.897	0.504	28,968																												
Carbon Black	1333-86-4	Mold Compound	0.145	0.025	1,448																												
Copper	7440-50-8	Lead Frame	47.045	8.186	470,446	<table border="1"> <tr> <td><b>8.41 (mg) Total</b></td> <td><b>Lead Frame</b></td> <td><b>% of Total Weight</b></td> <td><b>48.35</b></td> </tr> <tr> <td>Copper</td> <td>7440-50-8</td> <td>97.30</td> <td></td> </tr> <tr> <td>Iron</td> <td>7439-89-6</td> <td>2.30</td> <td></td> </tr> <tr> <td>Phosphorous</td> <td>7723-14-0</td> <td>0.25</td> <td></td> </tr> <tr> <td>Zinc (Metal)</td> <td>7440-66-6</td> <td>0.15</td> <td></td> </tr> <tr> <td><b>Total</b></td> <td></td> <td><b>100.00</b></td> <td></td> </tr> </table>	<b>8.41 (mg) Total</b>	<b>Lead Frame</b>	<b>% of Total Weight</b>	<b>48.35</b>	Copper	7440-50-8	97.30		Iron	7439-89-6	2.30		Phosphorous	7723-14-0	0.25		Zinc (Metal)	7440-66-6	0.15		<b>Total</b>		<b>100.00</b>				
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Iron	7439-89-6	Lead Frame	1.112	0.193	11,121																												
Phosphorous	7723-14-0	Lead Frame	0.121	0.021	1,209																												
Zinc (Metal)	7440-66-6	Lead Frame	0.073	0.013	725																												
Aluminum oxide	1344-28-1	Die Attach	0.122	0.021	1,221	<table border="1"> <tr> <td><b>0.07 (mg) Total</b></td> <td><b>Die Attach</b></td> <td><b>% of Total Weight</b></td> <td><b>0.40</b></td> </tr> <tr> <td>Aluminum oxide</td> <td>1344-28-1</td> <td>30.53</td> <td></td> </tr> <tr> <td>Bisphenol A, epichlorohydrin polymer</td> <td>25068-38-6</td> <td>30.53</td> <td></td> </tr> <tr> <td>Epoxy resin</td> <td>25036-25-3</td> <td>30.54</td> <td></td> </tr> <tr> <td>Amine modified epoxy isocyanate resin</td> <td>Trade Secret</td> <td>8.40</td> <td></td> </tr> <tr> <td><b>Total</b></td> <td></td> <td><b>100.00</b></td> <td></td> </tr> </table>	<b>0.07 (mg) Total</b>	<b>Die Attach</b>	<b>% of Total Weight</b>	<b>0.40</b>	Aluminum oxide	1344-28-1	30.53		Bisphenol A, epichlorohydrin polymer	25068-38-6	30.53		Epoxy resin	25036-25-3	30.54		Amine modified epoxy isocyanate resin	Trade Secret	8.40		<b>Total</b>		<b>100.00</b>				
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Amine modified epoxy isocyanate resin	Trade Secret	Die Attach	0.034	0.006	336	<table border="1"> <tr> <td><b>0.19 Total (mg)</b></td> <td><b>Chip (Die)</b></td> <td><b>% of Total Weight</b></td> <td><b>1.08</b></td> </tr> <tr> <td>Doped Silicon</td> <td>7440-21-3</td> <td>100.00</td> <td></td> </tr> <tr> <td><b>Total</b></td> <td></td> <td><b>100.00</b></td> <td></td> </tr> </table>	<b>0.19 Total (mg)</b>	<b>Chip (Die)</b>	<b>% of Total Weight</b>	<b>1.08</b>	Doped Silicon	7440-21-3	100.00		<b>Total</b>		<b>100.00</b>																
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Silicon	7440-21-3	Chip (Die)	1.080	0.188	10,800																												
Gold	7440-57-5	Wire Bond	0.150	0.026	1,500	<table border="1"> <tr> <td><b>0.03 (mg) Total</b></td> <td><b>Wire Bond</b></td> <td><b>% of Total Weight</b></td> <td><b>0.15</b></td> </tr> <tr> <td>Gold</td> <td>7440-57-5</td> <td>100.00</td> <td></td> </tr> <tr> <td><b>Total</b></td> <td></td> <td><b>100.00</b></td> <td></td> </tr> </table>	<b>0.03 (mg) Total</b>	<b>Wire Bond</b>	<b>% of Total Weight</b>	<b>0.15</b>	Gold	7440-57-5	100.00		<b>Total</b>		<b>100.00</b>																
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Nickel	7440-02-0	Plating on external leads (pins)	1.566	0.272	15,660																												
Palladium	7440-05-3	Plating on external leads (pins)	0.087	0.015	870	<table border="1"> <tr> <td><b>0.30 (mg) Total</b></td> <td><b>Plating on external leads (pins)</b></td> <td><b>% of Total Weight</b></td> <td><b>1.74</b></td> </tr> <tr> <td>Nickel</td> <td>7440-02-0</td> <td>90.00</td> <td></td> </tr> <tr> <td>Palladium</td> <td>7440-05-3</td> <td>5.00</td> <td></td> </tr> <tr> <td>Gold</td> <td>7440-57-5</td> <td>5.00</td> <td></td> </tr> <tr> <td><b>Total</b></td> <td></td> <td><b>100.00</b></td> <td></td> </tr> </table>	<b>0.30 (mg) Total</b>	<b>Plating on external leads (pins)</b>	<b>% of Total Weight</b>	<b>1.74</b>	Nickel	7440-02-0	90.00		Palladium	7440-05-3	5.00		Gold	7440-57-5	5.00		<b>Total</b>		<b>100.00</b>								
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<b>TOTALS:</b>			<b>100.000</b>	<b>17.400</b>	<b>1,000,000</b>																												
<b>0.0174 g Total Mass</b>																																	

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/offerings/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.

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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>

17.40

100.00