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Package Description	16-Lead, 5.5 x 3.0 mm Body, 4.7 x 1.6 mm Exposed Pad, Very Thin Dual Flat No Lead Package (VDFN)						
Lead Finish	Matte Tin (Sn)			Package Code / GPC		QDB / YEK	
J-STD-609 Category	e3			Termination Base Alloy:		Copper	
Package Material Declaration							
Material	Substance	CAS #	Weight (mg)	Homogeneous Material		Package	
				Percentage	ppm	Percentage	ppm
Leadframe	Copper (Cu)	7440-50-8	16.019	96.2	962000	36.91	369071
	Nickel (Ni)	7440-02-0	0.500	3.0	30000	1.15	11509
	Silicon (Si)	7440-21-3	0.100	0.6	6000	0.23	2302
	Magnesium (Mg)	7439-95-4	0.033	0.2	2000	0.08	767
Sub-Total			16.652	100.0	1000000	38.36	383649
Integrated Circuit	Silicon (Si)	7440-21-3	1.878	100.0	1000000	4.33	43260
Sub-Total			1.878	100.0	1000000	4.33	43260
Die Attach	Silver (Ag)	7440-22-4	0.150	76.6	766000	0.35	3450
	Acrylic Resin	Proprietary	0.016	8.3	83000	0.04	374
	Acrylate	Proprietary	0.010	5.3	53000	0.02	239
	Polybutadiene Copolymer	Proprietary	0.010	5.2	52000	0.02	234
	Epoxy Resin	Proprietary	0.005	2.4	24000	0.01	108
	Additive	Proprietary	0.002	0.9	9000	0.00	41
	Butadiene Copolymer	Proprietary	0.002	0.9	9000	0.00	41
	Peroxide	Proprietary	0.001	0.4	4000	0.00	18
Sub-Total			0.195	100.0	1000000	0.45	4504
Die Pad Plating	Silver (Ag)	7440-22-4	0.378	100.0	1000000	0.87	8701
Sub-Total			0.378	100.0	1000000	0.87	8701
Bond Wire	Copper (Cu)	7440-50-8	0.061	97.6	976000	0.14	1407
	Palladium (Pd)	7440-05-3	0.002	2.4	24000	0.00	35
Sub-Total			0.063	100.0	1000000	0.14	1442
Encapsulation	Silica (Amorphous) A	60676-86-0	18.198	77.6	776000	41.93	419271
	Epoxy Resin	Proprietary	2.064	8.8	88000	4.75	47546
	Silica (Amorphous) B	7631-86-9	2.064	8.8	88000	4.75	47546
	Phenol Resin	Proprietary	0.938	4.0	40000	2.16	21612
	Carbon Black	1333-86-4	0.188	0.8	8000	0.43	4322
Sub-Total			23.451	100.0	1000000	54.03	540297
Terminal Plating	Tin (Sn)	7440-31-5	0.788	100.0	1000000	1.81	18147
Sub-Total			0.788	100.0	1000000	1.81	18147
Total			43.405			100.00	1000000

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>.