MICROCHIP

Semiconductor Device Type: **NCA-VQFN-16-3x3x1.00mm-NiPdAu**

Sub-Component	Basic Substance	CAS Number	% Total Weight	mg/part	ppm
Die	Silicon	7440-21-3	3.29	0.70	32864
Mold Compound	Epoxy Resin	Trade Secret	2.84	0.60	28394
Mold Compound	Phenolic Resins	Trade Secret	2.03	0.43	20282
Mold Compound	Vitreous silica	60676-86-0	30.42	6.48	304225
Mold Compound	Silica	7631-86-9	2.84	0.60	28394
Mold Compound	Metal hydroxide	Trade Secret	2.03	0.43	20282
Mold Compound	Carbon Black	1333-86-4	0.41	0.09	4056
Die Attach Epoxy	2-(3,4-Epoxycyclohexyl)ethyltrimethoxysilane	3388-04-3	0.01	0.00	70
Die Attach Epoxy	Isobornyl acrylate	5888-33-5	0.04	0.01	352
Die Attach Epoxy	Isobornyl methacrylate	7534-94-3	0.04	0.01	352
Die Attach Epoxy	Tricyclodecanedimethanol diacrylate	42594-17-2	0.04	0.01	352
Die Attach Epoxy	Silver	7440-22-4	0.59	0.13	5915
Lead Frame	Silver	7440-22-4	2.65	0.57	26549
Lead Frame	Copper	7440-50-8	49.11	10.46	491109
Lead Frame	Iron	7439-89-6	1.22	0.26	12213
Lead Frame	Lead	7439-92-1	0.01	0.00	53
Lead Frame	Phosphorus	7723-14-0	0.05	0.01	531
Lead Frame	Zinc	7440-66-6	0.05	0.01	531
Lead Frame Plating	Palladium	7440-05-3	0.09	0.02	915
Lead Frame Plating	Gold	7440-57-5	0.09	0.02	915
Lead Frame Plating	Nickel	7440-02-0	1.65	0.35	16479
Bonding Wire	Gold	7440-57-5	0.52	0.11	5164
		TOTALS:	**100.00**	**21.30**	**1,000,000**

21.30 mg Total Mass

Package Homogeneous Materials

0.70	(mg) Total	Die	% of Total Weight	3.29
	Silicon	7440-21-3	100.00	
		Total	**100.00**	

8.64	(mg) Total	Mold Compound	% of Total Weight	40.56
	Epoxy Resin	Trade Secret	7.00	
	Phenolic Resins	Trade Secret	5.00	
	Vitreous silica	60676-86-0	75.00	
	Silica	7631-86-9	7.00	
	Metal hydroxide	Trade Secret	5.00	
	Carbon Black	1333-86-4	1.00	
		Total	**100.00**	

0.15	(mg) Total	Die Attach Epoxy	% of Total Weight	0.70
	2-(3,4-Epoxycyclohexyl)ethyltrimethoxysilane	3388-04-3	1.00	
	Isobornyl acrylate	5888-33-5	5.00	
	Isobornyl methacrylate	7534-94-3	5.00	
	Tricyclodecanedimethanol diacrylate	42594-17-2	5.00	
	Silver	7440-22-4	84.00	
		Total	**100.00**	

11.31	(mg) Total	Lead Frame	% of Total Weight	53.10
	Silver	7440-22-4	5.00	
	Copper	7440-50-8	92.49	
	Iron	7439-89-6	2.30	
	Lead	7439-92-1	0.01	
	Phosphorus	7723-14-0	0.10	
	Zinc	7440-66-6	0.10	
		Total	**100.00**	

0.39	(mg) Total	Lead Frame Plating	% of Total Weight	1.83
	Palladium	7440-05-3	5.00	
	Gold	7440-57-5	5.00	
	Nickel	7440-02-0	90.00	
		Total	**100.00**	

0.11	(mg) Total	Bonding Wire	% of Total Weight	0.52
	Gold	7440-57-5	100.00	
21.30		**Total**	**100.00**	100.00

The information contained in this Material Content Declaration (MCD) consists of package-level information and is not part number specific. This information is considered to be sufficiently representative of all part numbers for the package type.

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