MICROCHIP

Semiconductor Device Type:	FLA	WLCSP_6_SAC105			
Basic Substance	**CAS Number**	**"Contained In" Sub-Component**	**% Total Weight**	**mg/part**	**ppm**
Silicon	7440-21-3	Die	56.259	0.832	562588
N-Methyl-2-pyrrolidone	872-50-4	Repassivation Polyamide	2.343E-11	3.465E-13	0
Polyamic Acid Ester	Trade Secret	Repassivation Polyamide	1.661E-11	2.457E-13	0
Aromatic Oxime	Trade Secret	Repassivation Polyamide	2.343E-12	3.465E-14	0
Methanol	67-56-1	Repassivation Polyamide	2.130E-13	3.150E-15	0
N-Methyl-2-pyrrolidone	872-50-4	Repassivation Polyamide	2.343E-11	3.465E-13	0
Polyamic Acid Ester	Trade Secret	Repassivation Polyamide	1.661E-11	2.457E-13	0
Aromatic Oxime	Trade Secret	Repassivation Polyamide	2.343E-12	3.465E-14	0
Methanol	67-56-1	Repassivation Polyamide	2.130E-13	3.150E-15	0
Ti (UBM 1)	7440-32-6	Sputter Target	0.034	0.0005	337
Ti (UBM 2)	7440-32-6	Sputter Target	0.010	0.0001	99
Cu (UBM 1)	7440-50-8	Sputter Target	0.134	0.002	1337
Cu (UBM 2)	7440-50-8	Sputter Target	0.039	0.001	394
sulphuric acid	7664-93-9	Plating	0.129	0.002	1290
copper sulphate	7758-98-7	Plating	0.047	0.001	473
Water	7732-18-5	Plating	0.684	0.010	6838
sulphuric acid	7664-93-9	Plating	0.033	4.835E-04	327
copper sulphate	7758-98-7	Plating	0.012	1.773E-04	120
Water	7732-18-5	Plating	0.173	0.003	1733
95.5% Sn	7440-31-5	Solder Ball	40.536	0.600	405362
4.0% Ag	7440-22-4	Solder Ball	1.698	0.025	16978
0.5% Cu	7440-50-8	Solder Ball	0.212	0.003	2122
		TOTALS:	**100.000**	**1.479**	**1,000,000**

1.479 mg Total Mass

Package Homogeneous Materials

0.832	**(mg) Total**	**Die**	**% of Total Weight**	**56.259**
6" Die	Silicon	7440-21-3	100.000	
		Total	**100.000**	
1.260E-12	**(mg) Total**	**Repassivation Polyamide**	**% of Total Weight**	**8.519E-11**
PI1 (HD4100)	N-Methyl-2-pyrrolidone	872-50-4	27.500	
	Polyamic Acid Ester	Trade Secret	19.500	
	Aromatic Oxime	Trade Secret	2.750	
	Methanol	67-56-1	0.250	
PI2 (HD4100)	N-Methyl-2-pyrrolidone	872-50-4	27.500	
	Polyamic Acid Ester	Trade Secret	19.500	
	Aromatic Oxime	Trade Secret	2.750	
	Methanol	67-56-1	0.250	
		Total	**100.000**	
0.003	**(mg) Total**	**Sputter Target**	**% of Total Weight**	**0.217**
Titanium Target	Ti (UBM 1)	7440-32-6	15.559	
	Ti (UBM 2)	7440-32-6	4.584	
Copper Target	Cu (UBM 1)	7440-50-8	61.683	
	Cu (UBM 2)	7440-50-8	18.175	
		Total	**100.000**	
0.016	**(mg) Total**	**Plating**	**% of Total Weight**	**1.078**
Cu Plate (RDL)	sulphuric acid	7664-93-9	11.967	
	copper sulphate	7758-98-7	4.388	
	Water	7732-18-5	63.428	
Cu Plate (Seed)	sulphuric acid	7664-93-9	3.033	
	copper sulphate	7758-98-7	1.112	
	Water	7732-18-5	16.072	
		Total	**100.000**	
0.628	**(mg) Total**	**Solder Ball**	**% of Total Weight**	**42.446**
SAC 405	95.5% Sn	7440-31-5	95.500	
	4.0% Ag	7440-22-4	4.000	
	0.5% Cu	7440-50-8	0.500	
		Total	**100.000**	

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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