

Materials Composition Declaration

Substance present with less 0.001mg will not be declared in this document

Part Number	Package description	Product weight (mg)	Moisture Sensitivity Level (J-STD-020)	Environmental Compliance Info
BOS1921CW BOS1931CW	WLCSP 20B 2.1mm x 1.7mm	4,843	1	<i>Quality – Boréas Technologies (boreas.ca)</i>

Homogeneous material	Substance (Mfr Item Name)	CAS	Material group	Mass (mg)	Concentration in homogeneous material		Concentration in product	
					(%)	(ppm)	(%)	(ppm)
Die	Silicon(Si)	7440-21-3	Other inorganic materials	2,975	99%	991650	61%	614213
	Aluminium(Al)	7429-90-5	Non-ferrous metals and alloys	0,013	0%	4193	0%	2597
	Phosphorus(P)	7723-14-0	Other inorganic materials	0,001	0%	255	0%	158
	Titanium(Ti)	7440-32-6	Non-ferrous metals and alloys	0,004	0%	1315	0%	814
	Tungsten(W)	7440-33-7	Other precious metals	0,008	0%	2588	0%	1603
subtotal				3,000	100%	1000000	62%	619385
Dielectric layers (RCF & PSV)	N-Methyl-2-pyrrolidone	872-50-4	Organic materials	0,030	60%	600000	1%	6194
	Polyamic Acid Ester	Proprietary		0,015	30%	300000	0%	3097
	3,6,9-Trioxaundecamethylene dimethacrylate	109-17-1		0,003	5%	50000	0%	516
	Aromatic Oxime	Proprietary	Organic materials	0,003	5%	50000	0%	516
subtotal				0,050	100%	1000000	1%	10323
Metallization (RDL & UBM)	Titanium(Ti)	7440-32-6	Non-ferrous metals and alloys	0,004	1%	10189	0%	723
	Copper(Cu)	7440-50-8	Non-ferrous metals and alloys	0,340	99%	989811	7%	70197
subtotal				0,344	100%	1000000	7%	70920
Bumps (SAC405)	TIN(Sn)	7440-31-5	Non-ferrous metals and alloys	1,380	95%	951724	28%	284919
	Silver(Ag)	7440-22-4	Precious metals	0,060	4%	41379	1%	12388
	Copper(Cu)	7440-50-8	Non-ferrous metals and alloys	0,010	1%	6897	0%	2065
subtotal				1,450	100%	1000000	30%	299371
total				4,843			100%	

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