

Document Title:	
Product Code:	
Cognidox Ref.:	
Issue:	
Date Issued	

CSR Product	BC417143B-GIRN-E4		Product Environmental Status	Definition of EU RoHS:	Product meets the requirements of Directive 2002/95/EC of the European Parliament and of the Council on the Restriction of Hazardous Substances.
Package	VFBGA 96balls 6 x 6 x 1.0mm	Material Environmental Status	Link to Lab Analysis Reports	CSR 'GREEN' Compliant	Definition of CSR 'GREEN': Product meets EU RoHS requirements and is also free from halogenated or antimony trioxide based flame retardants and other hazardous substances. If you require a full list of the definition of CSR 'GREEN', please contact product.compliance@csr.com
Die Size	3800 x 3620µm	CSR 'GREEN'	CS-118318-RP		
Mold Compound	Kyocera G1250LKDS-C3	CSR 'GREEN'	CS-110256-RP		
Substrate	2 layer BT / HL832NX+AUS308	CSR 'GREEN'	CS-110359-RP		
Die Attach	Ablestik 2025D	CSR 'GREEN'	CS-110035-RP		
Bond Wire:	0.8 mil diam Pd coated Cu	CSR 'GREEN'	CS-130813-RP		
Solder Balls	0.3mm Ø 98.5Sn/1.0Ag/0.5Cu	CSR 'GREEN'	CS-110498-RP	Env. Compliance Statement CB-001036-ST	

Manufacturer contact information	
Contact:	product.compliance@csr.com

MATERIAL DATA FORM

Manufacturer name.	Total Mass of the Unit specified in (g):	Unit / Comp. Description. (e.g. CHIPRES 0W125 1R0 J 1206)	Breakdown of component (e.g. chassis, transformer, lead frame, encapsulation, etc.)	Material Name. (e.g. Sn alloy)	Substance Name (e.g. Copper (Cu))	CAS No.	Substance Mass. (g)	Substance Mass. (mg)	% weight with respect to homogenous material / sub mass	% weight with respect to whole package	Additional Information (e.g. complete polymeric Material Trade Name or metallic Material Standard). Please declare "No FR" when the polymeric material DOES NOT contain any flame retardants.			
CSR / ASE	0.063	BC417143B-GIRN-E4												
			Substrate (sub mass)				sub mass	0.014137	14.137	100.0000%	22.3264%			
<p>The data set forth herein have been derived using information supplied to CSR by its suppliers and is believed to be accurate on the date of preparation. However, CSR MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE DATA AND DISCLAIMS ALL RELIABILITY FROM RELIANCE ON IT OTHER THAN THAT EXPRESSLY PROVIDED IN CSR ENVIRONMENTAL COMPLIANCE STATEMENTS - CB-001021-ST (RoHS Compliant Products) or CB-001036-ST (Green Products).</p>			Continuous Filament Fiber Glass	Continuous Filament Fiber Glass	Continuous Filament Fiber Glass	65997-17-3	0.001484	1.484	10.5000%	2.3443%				
			Acrylic	Acrylic	Acrylic	Proprietary	0.001414	1.414	10.0000%	2.2326%				
			Epoxy	Epoxy	Epoxy	9003-36-5, Proprietary	0.000990	0.990	7.0000%	1.5628%				
			Bismaleimide	Bismaleimide	Bismaleimide	105391-33-1	0.002036	2.036	14.4000%	3.2150%				
			Triazine	Triazine	Triazine	1156-51-0	0.002262	2.262	16.0000%	3.5722%				
			Cu	Cu	Cu	7440-50-8	0.005655	5.655	40.0000%	8.9306%				
			Ni	Ni	Ni	7440-02-0	0.000212	0.212	1.5000%	0.3349%				
			Au	Au	Au	7440-57-5	0.000085	0.085	0.6000%	0.1340%				
						Die Attachment (sub mass)				sub mass	0.000489	0.489	100.0000%	0.7725%
						Silica, amorphous, fused	Silica, amorphous, fused	Silica, amorphous, fused	60676-86-0	0.000245	0.245	50.0000%	0.3863%	
						Bismaleimide monomer	Bismaleimide monomer	monomer	Proprietary	0.000122	0.122	25.0000%	0.1931%	
						Acrylate monomer	Acrylate monomer	Acrylate monomer	Proprietary	0.000049	0.049	10.0000%	0.0773%	
						Epoxy resin	Epoxy resin	Epoxy resin	Proprietary	0.000049	0.049	10.0000%	0.0773%	
						Acrylic resin	Acrylic resin	Acrylic resin	Proprietary	0.000024	0.024	5.0000%	0.0386%	
						Bond Wire (sub mass)				sub mass	0.000375	0.375	100.0000%	0.5915%
						Cu	Cu	Cu	7440-50-8	0.000364	0.364	97.3000%	0.5755%	
						Pd	Pd	Pd	7440-05-3	0.000010	0.010	2.7000%	0.0160%	
						Molding Compound (sub mass)				sub mass	0.032400	32.400	100.0000%	51.1682%
						silica fused	silica fused	silica fused	60676-86-0	0.029063	29.063	89.7000%	45.8979%	
						Epoxy resin	Epoxy resin	Epoxy resin	Proprietary	0.001782	1.782	5.5000%	2.8143%	
						Phenol resin	phenol resin	phenol resin	Proprietary	0.001458	1.458	4.5000%	2.3026%	
						Carbon black	Carbon black	Carbon black	1333-86-4	0.000097	0.097	0.3000%	0.1535%	
						Solder Sphere-Pb-free (sub mass)				sub mass	0.010043	10.043	100.0000%	15.8607%
						Sn-Ag-Cu alloy	Tin (Sn) (98.5%)	Tin (Sn)	7440-31-5	0.009892	9.892	98.5000%	15.6228%	
						Sn-Ag-Cu alloy	Silver (Ag) (1%)	Silver (Ag)	7440-22-4	0.000100	0.100	1.0000%	0.1586%	
			Sn-Ag-Cu alloy	Copper (Cu) (0.5%)	Copper (Cu)	7440-50-8	0.000050	0.050	0.5000%	0.0793%				
			Silicon Chip (sub mass)				sub mass	0.005877	5.877	100.0000%	9.2807%			
				Si	Silicon (Si)	7440-21-3	0.005877	5.877	100.0000%	9.2807%				
							Total mass (mg)	0.063321	63.321	100.00%				

COMMERCIAL IN CONFIDENCE

© Copyright Cambridge Silicon Radio Limited 2012 - 2013

This material may not in whole or part be copied, stored electronically or communicated to third parties without CSR's prior agreement in writing.