

Date	27-Feb-20	Product name	Integrated Circuit
Package Code	TC	RoHS Compliant	Y
Package Name	Ceramic Ball Grid Array	Halogen Free	N
Product Total Mass (g)	1.046	Plating	Tin/Silver/Copper alloy
<b>Product Number</b>	MLX75027		

**Material Declaration**

Part Name	Material Name	Component Weight (g)	Material Component (Element)	CAS #	Element ratio (%)	Material Weight (g)	Ratio total Wt (ppm)
Substrate	Ceramic without declarable substances	0.736	Aluminum oxide	1344-28-1	78.5	0.57768	552488
			Silicon dioxide	7631-86-9	4	0.02576	24633
			Calcium oxide (cao)	1305-78-8	1	0.00736	7038
			Magnesium oxide	1309-48-4	1	0.00736	7038
			Titanium dioxide	13463-67-7	1.5	0.01104	10557
			Chromium oxide	11118-57-3	4	0.02944	28152
			Tungsten	7440-33-7	8.0	0.05887	56305
			Molybdenum	10241-05-1	1	0.00736	7038
			Nickel	7440-02-0	0.5	0.00368	3519
			Cobalt	10124-43-3	0.5	0.00368	3519
Gold	7440-57-5	0.5	0.00368	3519			
Die	Silicon	0.031	Silicon (Si)	7440-21-3	99.99	0.03110	29741
			others	-	0.01	0.000003	3
Filter	Glass without declarable substances	0.217	Silica	14808-60-7	51	0.11087	106039
			Sodium Oxide	1313-59-3	8	0.01739	16634
			Potassium Oxide	12136-45-7	8	0.01739	16634
			Zinc Oxide	1314-13-2	8	0.01739	16634
			Aluminium Oxide	1344-28-1	8	0.01739	16634
			Boron Oxide	1303-86-2	8	0.01739	16634
			Titanium Oxide	13463-67-7	8	0.01739	16634
Antimony Trioxide	1309-64-4	1	0.00217	2079			
Adhesive	Silver Adhesive QMIS16	0.008	Silver	7440-22-4	80	0.00608	5815
			Bismaleimide resin	Proprietary	5	0.00038	363
			Synthetic resin	Proprietary	5	0.00038	363
			Methacrylate ester	Proprietary	5	0.00038	363
			Additive	-	5	0.00038	363
Wire	Gold	0.003	Gold	7440-57-5	99	0.00297	2840
			others	-	1	0.00003	29
Sealing Glue	Epoxy Adhesive 8724L2	0.009	Epoxy prepolymer	-	80	0.00720	6886
			Photoinitiator	-	3	0.00027	258
			Other additives	-	17	0.00153	1463
Solder Flux	Rosin TSF-6502	0.001	Rosin	Proprietary	60	0.00048	459
			Glycol ether	Proprietary	25	0.00020	191
			Propylene glycol compound	Proprietary	10	0.00008	77
			others	-	5	0.00004	38
Solder Ball	SAC 305 96.5 Sn/3 Ag/ 0.5 Cu	0.040	Tin (Sn)	7440-31-5	96.5	0.03860	36917
			Silver (Ag)	7440-22-4	3	0.00120	1148
			Copper (Cu)	7440-50-8	0.5	0.00020	191
Ink marking	Titanium white 4408R White	0.001	Titanium dioxide	13463-67-7	61	0.00049	467
			Cyclohexanone	108-94-1	7	0.00006	54
			n-Butyl acetate	123-86-4	5	0.00004	38
			Stoddard solvent	8052-41-3	5	0.00004	38
			Pseudocumene	95-63-6	5	0.00004	38
			Trimethyl benzene	25551-13-7	5	0.00004	38
			Aluminium hydroxide	21645-51-2	5	0.00004	38
			Xylenes (o-, m-, p-isomers)	1330-20-7	5	0.00004	38
			1,3,5-Trimethylbenzene	108-67-8	1	0.00001	8
Ethyl benzene	100-41-4	1	0.00001	8			

Total package weight (g) 1.046

**Comments**

- Composition derived from MSDS and material CoC from vendors
- Component weight based on assembly of generic parts
- Reliability qualification reports are available upon request through the appropriate sales or marketing contact
- Third party testing for RoHS substances are available upon request to environment@melexis.com

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