

**16 Leads - TSSOP
Package Material Declaration**

| | | | |
|------------------------|---|----------------|--------------------|
| Date | 8-Sep-21 | Product name | Integrated Circuit |
| Package Code | GO | RoHS Compliant | Y |
| Package Name | Thin Plastic Shrink Small Outline 173 mil | Halogen Free | Y |
| Product Total Mass (g) | 0.05620 | Plating | NiPdAu |
| Product Number | MLX90510 | | |

Material Declaration

| Part Name | Material Name | Component Weight (g) | Material Component (Element) | CAS # | Element ratio (%) | Material Weight (g) | Ratio total Wt (ppm) |
|---------------------|---------------------------------|----------------------|------------------------------|------------|-------------------|---------------------|----------------------|
| Leadframe | High Copper Alloy C194 | 0.02235 | Copper (Cu) | 7440-50-8 | 97.46 | 0.02178 | 387505 |
| | | | Iron (Fe) | 7439-89-6 | 2.33 | 0.00052 | 9264 |
| | | | Zinc (Zn) | 7440-66-6 | 0.12 | 0.00003 | 477 |
| | | | Phosphorus (P) | 7723-14-0 | 0.077 | 0.00002 | 306 |
| | | | Lead (Pb) | 7439-92-1 | 0.013 | 0.000003 | 52 |
| Frame plating | NiPdAu | 0.00019 | Nickel (Ni) | 7440-02-0 | 86 | 0.00016 | 2848 |
| | | | Palladium (Pd) | 7440-05-3 | 12 | 0.00002 | 397 |
| | | | Gold (Au) | 7440-57-5 | 2 | 0.000004 | 66 |
| Die | Silicon | 0.00341 | Silicon (Si) | 7440-21-3 | 99.99 | 0.00341 | 60724 |
| | | | other | - | 0.01 | 0.000003 | 6 |
| Die attach material | Silver-Epoxy Adhesive CRM1076WB | 0.00066 | Silver (Ag) | 7440-22-4 | 80 | 0.00052 | 9341 |
| | | | Epoxy Resin | - | 15 | 0.00010 | 1751 |
| | | | Misc., not to declare | - | 5 | 0.00003 | 584 |
| Wire | Palladium coated Gold | 0.00016 | Gold (Au) | 7440-57-5 | 99 | 0.00015 | 2748 |
| | | | Palladium (Pd) | 7440-05-3 | 0.95 | 0.000001 | 26 |
| | | | Calcium (Ca) | 7440-70-2 | 0.05 | 0.0000001 | 1 |
| Encapsulation | Silica EP EME-G700LS | 0.02944 | Silica fused | 60676-86-0 | 80.5 | 0.02370 | 421741 |
| | | | Silicon dioxide | 7631-86-9 | 8.6 | 0.00253 | 45056 |
| | | | Epoxy Resin | - | 6.7 | 0.00197 | 35101 |
| | | | Phenol Resin | - | 3.7 | 0.00109 | 19384 |
| | | | Carbon Black | 1333-86-4 | 0.5 | 0.00015 | 2620 |

Total package weight (g) 0.05620

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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