# Materials Declaration Form

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|---|---|---|---|
| **IPC** | **1752** | **Version** | **2** |
| **Form Type *** | Distribute | | |
| **Sectionals *** | Material Info<br>Manufacturing Info | **Subsectionals *** | A-D<br>*** : Required Field** |

| Supplier Information | | | |
|---|---|---|---|
| **Company Name *** | STMicroelectronics | **Response Date *** | 20-10-2017 |
| **Company Unique ID** | NL 008751171B01 | | |
| **Contact Name *** | Refer to Supplier Comment section | | Refer to Supplier Comment section |
| **Contact Phone *** | Refer to Supplier Comment section | **Contact Email *** | Refer to Supplier Comment section |
| **Authorized Representative *** | MDG MD CHAMPION | **Representative Title** | MDG MD CHAMPION |
| **Representative Phone *** | Refer to Supplier Comment section | **Representative Email *** | Refer to Supplier Comment section |
| **Supplier Comment** | Online Technical Support - STMicroelectronics :<br>http://www.st.com/web/en/support/support.html | | |

**Uncertainty Statement**

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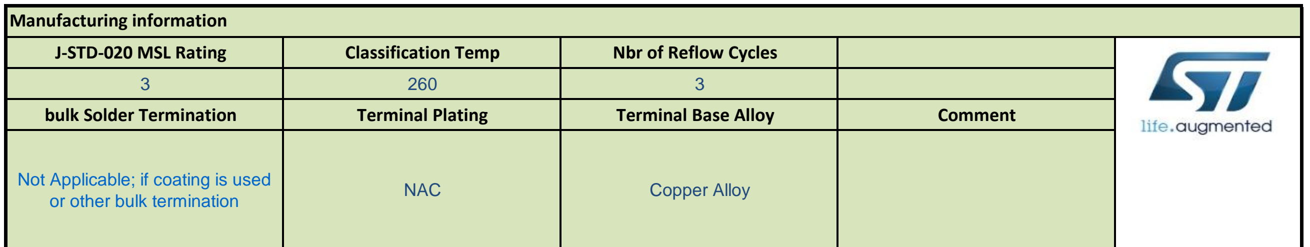
**Legal Statement**

| | | | |
|---|---|---|---|
| **Supplier Acceptance *** | true | **Legal Declaration *** | Standard |

**Legal Statement**

Supplier certifies that it gathered the provided information and such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products. Company acknowledges that Supplier may have relied on information provided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its suppliers have provided certifications regarding their contributions to the part(s), and those certifications are at least as omprehensive as the certification in this paragraph. If the Company and the Supplier enter into a written agreement with respect to the identified part(s), the terms and conditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, will be the sole and exclusive source of the Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form.

| Product | | | | |
|---|---|---|---|---|
| Mfr Item Number | Mfr Item Name | Version | Mfr Site | Date |
| STM32L4R5QGI6 | P1PG*470XXXY | A | 9996 | 20-10-2017 |
| | Amount | UoM | Unit type | ST ECOPACK Grade |
| | 70.98 | mg | Each | ECOPACK® 2 |
| . | Comment | ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant ( in each organic material) | | |



| Manufacturing information | | | | |
|---|---|---|---|---|
| J-STD-020 MSL Rating | Classification Temp | Nbr of Reflow Cycles | | |
| 3 | 260 | 3 | | |
| bulk Solder Termination | Terminal Plating | Terminal Base Alloy | Comment | |
| Not Applicable; if coating is used or other bulk termination | NAC | Copper Alloy | | |



| Package Designator | Size | Nbr of instances | Shape | |
|---|---|---|---|---|
| BGA | 7,7,0.6 | 132 | No lead | |
| Comment | Package : A0G8 UFBGA 7X7X0.6 132L P 0.5 R 12X12 8298393 | | | |

| QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015 | |
|---|---|
| **Query** | **Response** |
| 1 - Product(s) meets EU RoHS requirement without any exemptions | **TRUE** |
| 2 - Product(s) meets EU RoHS requirements except lead in solder and this usage may qualify under the lead in solder '7b' exemption (other selected exemptions may apply) | FALSE |
| 3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s) | FALSE |
| 4 - Product(s) does not meet EU RoHS requirements and is not under exemptions | FALSE |

| Exemption Id. | Description |
|---|---|
| | |

| QueryList : REACH- 7th July 2017 | | | | |
|---|---|---|---|---|
| **Query** | | | | **Response** |
| 1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH | | | | **TRUE** |
| CategoryLevel_Name | CategoryLevel_Threshold | amount in product (mg) | Application | ppm in product |
| | | | | |

| **Material Composition Declaration :**<br>note : Substance present with less 0.001mg will not be declared in this document | | | | | | Mfr Item Name | P1PG*470XXXY | | | | 6100001.0 | 37255.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Homogeneous Material** | **Material Group** | **Mass** | **UoM** | **Level** | **Substance Category** | **Substance** | **CAS** | **Exempt** | **Mass** | **UoM** | **Concentration in homogeneous material (ppm)** | **Concentration in product (ppm)** |
| Die or dies | M-011 Other inorganic materials | 0.530 | mg | supplier | die | Silicon (Si) | 7440-21-3 | | 0.521 | mg | 983019 | 7340 |
| | | | | supplier | metallization | Aluminium (Al) | 7429-90-5 | | 0.001 | mg | 1887 | 14 |
| | | | | supplier | metallization | Titanium (Ti) | 7440-32-6 | | 0.001 | mg | 1887 | 14 |
| | | | | supplier | Passivation | Silicon Nitride | 12033-89-5 | | 0.001 | mg | 1887 | 14 |
| | | | | supplier | Passivation | Silicon Oxide | 7631-86-9 | | 0.006 | mg | 11321 | 85 |
| SUBSTRATE (DS7409HGB) | M-011 Other inorganic materials | 34.207 | mg | supplier | CORE | Glass Cloth | 65997-17-3 | | 5.815 | mg | 170000 | 81923 |
| | | | | supplier | CORE | Epoxy resin | 61788-97-4 | | 1.368 | mg | 40000 | 19276 |
| | | | | supplier | CORE | Flame resistant epoxy resin | 223769-10-6 | | 1.368 | mg | 40000 | 19276 |
| | | | | supplier | CORE | Heat resistant resin | 25722-66-1 | | 1.368 | mg | 40000 | 19276 |
| | | | | supplier | CORE | Silica filler | 7631-86-9 | | 3.763 | mg | 110000 | 53009 |
| | | | | supplier | CORE | Metal Hydroxide | Proprietary | | 0.684 | mg | 20000 | 9638 |
| | | | | supplier | CORE | Copper (Cu) | 7440-50-8 | | 14.367 | mg | 420000 | 202398 |
| | | | | supplier | SOLDERMASK (AUS320) | Solvent naptha(petroleum),heavy aromatic | 64742-94-5 | | 1.881 | mg | 55000 | 26505 |
| | | | | supplier | SOLDERMASK (AUS320) | Napthalene | 91-20-3 | | 0.198 | mg | 5800 | 2795 |
| | | | | supplier | SOLDERMASK (AUS320) | Phosphinoxide derivative | Proprietary | | 0.068 | mg | 2000 | 964 |
| | | | | supplier | SOLDERMASK (AUS320) | Talc containing no asbestiform fibers | 14807-96-6 | | 0.513 | mg | 15000 | 7229 |
| | | | | supplier | SOLDERMASK (AUS320) | Barium sulfate | 7727-43-7 | | 0.855 | mg | 25000 | 12048 |
| | | | | supplier | SOLDERMASK (AUS320) | Dipropylene glycol monomethyl ether | 34590-94-8 | | 0.513 | mg | 15000 | 7229 |
| | | | | supplier | CU PLATING | Copper (Cu) | 7440-50-8 | | 1.231 | mg | 36000 | 17348 |
| | | | | supplier | NI PLATING | Nickel (Ni) | 7440-02-0 | | 0.171 | mg | 5000 | 2409 |
| | | | | supplier | AU PLATING | Gold (Au) | 7440-57-5 | | 0.041 | mg | 1200 | 578 |
| DIE ATTACH (ATB-130U) | M-011 Other inorganic materials | 0.686 | mg | supplier | GLUE | Butadiene,acrylonitrile polymer,carboxy-termi | 68610-41-3 | | 0.480 | mg | 700000 | 6766 |
| | | | | supplier | GLUE | Phenol-formaldehyde polymer | 9003-35-4 | | 0.069 | mg | 100000 | 967 |
| | | | | supplier | GLUE | Phenol polymer with formaldehyde,glycidyl et | 28064-14-4 | | 0.063 | mg | 92000 | 889 |
| | | | | supplier | GLUE | Dapsone | 80-08-0 | | 0.067 | mg | 97000 | 938 |
| | | | | supplier | GLUE | Reaction product bisphenol-A-(epichlorhydrin | 25068-38-6 | | 0.007 | mg | 10000 | 97 |
| | | | | supplier | GLUE | 4,4, Isopropylidenediphenol | 80-05-7 | | 0.001 | mg | 1000 | 9 |
| BONDING WIRE (MKE 4N) | M-011 Other inorganic materials | 0.709 | mg | supplier | BONDING WIRE | Gold (Au) | 7440-57-5 | | 0.709 | mg | 1000000 | 9987 |
| SOLDERBALL (Sn96.5Ag3.5) | M-011 Other inorganic materials | 4.099 | mg | supplier | SOLDERBALL | Tin (Sn) | 7440-31-5 | | 3.955 | mg | 965000 | 55721 |
| | | | | supplier | SOLDERBALL | Silver (Ag) | 7440-22-4 | | 0.143 | mg | 35000 | 2021 |
| ENCAPSULATION (GE-100LFCS) | M-011 Other inorganic materials | 30.753 | mg | supplier | MOLDING COMPOUND | Silica fused (SiO2) | 60676-86-0 | | 28.109 | mg | 900000 | -604018 |
| | | | | supplier | MOLDING COMPOUND | Epoxy resin | Proprietary | | 1.190 | mg | 45000 | 16765 |
| | | | | supplier | MOLDING COMPOUND | Phenol resin | Proprietary | | 1.058 | mg | 40000 | 14902 |
| | | | | supplier | MOLDING COMPOUND | Metal Hydroxide | Proprietary | | 0.264 | mg | 10000 | 3725 |
| | | | | supplier | MOLDING COMPOUND | Carbon black | 1333-86-4 | | 0.132 | mg | 5000 | 1863 |
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