

| Product | | | | |
|-----------------|---------------|---|------------------|------------|
| Mfr Item Number | Mfr Item Name | Version | Mfr Site | Date |
| STM32F767ZGT6 | P61A*451XXXZ | A | 9998 | 15-03-2018 |
| Amount | UoM | Unit type | ST ECOPACK Grade | |
| 1315.000 | 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 | |  life.augmented |
| 3 | 260 | 3 | | |
| bulk Solder Termination | Terminal Plating | Terminal Base Alloy | Comment | |
| able; if coating is used or other bulk | Tin (Sn), matte | Copper Alloy | | |

| Package Designator | Size | Nbr of instances | Shape | |
|--------------------|---|------------------|-------|--|
| LQFP | 20x20x1.4 | 144 | | |
| Comment | Package : 1A LQFP 144 20X20X1.4 2 0099183 | | | |

| 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-12th January 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 : note : Substance present with less 0.001mg will not be declared in this document | | | | | | Mfr Item Name | P61A*451XXXZ | | | | 7000001.0 | 0.0 |
|--|---------------------------------|---------|-----|----------|--------------------|--|--------------|--------|---------|-----|---|--------------------------------|
| 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 | 63.260 | mg | supplier | die | Silicon (Si) | 7440-21-3 | | 61.678 | mg | 974992 | 46903 |
| | | | | supplier | metallization | Aluminium (Al) | 7429-90-5 | | 0.111 | mg | 1755 | 84 |
| | | | | supplier | metallization | Copper (Cu) | 7440-50-8 | | 0.719 | mg | 11366 | 547 |
| | | | | supplier | metallization | Cobalt (Co) | 7440-48-4 | | 0.002 | mg | 32 | 2 |
| | | | | supplier | metallization | Tantalum (Ta) | 7440-25-7 | | 0.100 | mg | 1581 | 76 |
| | | | | supplier | metallization | Tungsten (W) | 7440-33-7 | | 0.323 | mg | 5106 | 246 |
| | | | | supplier | Passivation | Silicon Nitride | 12033-89-5 | | 0.084 | mg | 1328 | 64 |
| | | | | supplier | Passivation | Silicon Oxide | 7631-86-9 | | 0.243 | mg | 3841 | 185 |
| LEADFRAME (MHT- C194) | Copper and its alloy | 246.909 | mg | supplier | ALLOY | Copper (Cu) | 7440-50-8 | | 240.736 | mg | 975000 | 183069 |
| | | | | supplier | ALLOY | Iron (Fe) | 7439-89-6 | | 5.802 | mg | 23500 | 4412 |
| | | | | supplier | ALLOY | Zinc (Zn) | 7440-66-6 | | 0.296 | mg | 1200 | 225 |
| | | | | supplier | ALLOY | Metallic Phosphorus (P) | 7723-14-0 | | 0.074 | mg | 300 | 56 |
| LEADFRAME (MHT - Ag Plating) | M-011 Other inorganic materials | 1.640 | mg | supplier | COATING | Silver(Ag) | 7440-22-4 | | 1.640 | mg | 1000000 | 1247 |
| DIE ATTACH (Evertech - AP4200) | M-011 Other inorganic materials | 4.398 | mg | supplier | GLUE | Formaldehyde, oligomeric reaction products w | 9003-36-5 | | 0.704 | mg | 160000 | 535 |
| | | | | supplier | GLUE | 1,4-bis(2,3-epoxypropoxy)butane | 2425-79-8 | | 0.066 | mg | 15000 | 50 |
| | | | | supplier | GLUE | Formaldehyde, oligomeric reaction products w | 9003-35-4 | | 0.066 | mg | 15000 | 50 |
| | | | | supplier | GLUE | 2-butoxyethyl acetate | 112-07-2 | | 0.176 | mg | 40000 | 134 |
| BONDING WIRE (Hesung - Au HTS) | M-011 Other inorganic materials | 2.654 | mg | supplier | BONDING WIRE | Gold (Au) | 7440-57-5 | | 2.628 | mg | 990050 | 1998 |
| | | | | supplier | BONDING WIRE | Palladium (Pd) | 7440-05-3 | | 0.026 | mg | 9900 | 20 |
| | | | | supplier | BONDING WIRE | Calcium (Ca) | 7440-70-2 | | 0.000 | mg | 50 | 0 |
| ENCAPSULATION (Sumitomo - G631H) | M-011 Other inorganic materials | 988.281 | mg | supplier | MOLDING COMPOUND | Epoxy Resin A | Trade Secret | | 20.434 | mg | 20000 | 15539 |
| | | | | supplier | MOLDING COMPOUND | Epoxy Resin B | 85954-11-6 | | 40.868 | mg | 40000 | 31078 |
| | | | | supplier | MOLDING COMPOUND | Silica Amorphous A | 60676-86-0 | | 768.616 | mg | 785000 | -415502 |
| | | | | supplier | MOLDING COMPOUND | Silica Amorphous B | 7631-86-9 | | 86.844 | mg | 85000 | 66041 |
| | | | | supplier | MOLDING COMPOUND | Carbon Black | 1333-86-4 | | 5.108 | mg | 5000 | 3885 |
| FINISHING (Sytron - Pure Tin) | M-011 Other inorganic materials | 7.858 | mg | supplier | MOLDING COMPOUND | Phenol Resin | Trade Secret | | 66.410 | mg | 65000 | 50502 |
| | | | | supplier | COATING | Tin (Sn) | 7440-31-5 | | 7.858 | mg | 1000000 | 5976 |