


| Product | | | | |
|--------------------------------|---------------|---|-----------|------------------|
| Mfr Item Number | Mfr Item Name | Version | Mfr Site | Date |
| STM8L151M8T6 STM8L151M8T6TR | U31S*768XXXZ | A | 959 | 2017-05-12 |
| | Amount | UoM | Unit type | ST ECOPACK Grade |
| | 645.00 | 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 | |
| NiPdAu | NAC | Copper | | |

| Package Designator | Size | Nbr of instances | Shape | |
|--------------------|--|------------------|--------|--|
| QFP | 14x14x1.4 | 80 | L Bend | |
| Comment | Package : 1S LQFP 80 14x14x1.4 1 0062342 | | | |

| 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 : | | | | | | Mfr Item Name | U315*768XXXZ | | | | 7000000.0 | 1000000.0 |
|--|---------------------------------|---------|-----|----------|---------------------------|----------------------------|--------------|--------|---------|-----|---|--------------------------------|
| note : Substance present with less 0.001mg will not be declared in this document | | | | | | | | | | | | |
| 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 | 6.688 | mg | supplier | die | Silicon (Si) | 7440-21-3 | | 6.482 | mg | 969199 | 10050 |
| | | | | supplier | metallization | Aluminium (Al) | 7429-90-5 | | 0.018 | mg | 2691 | 28 |
| | | | | supplier | metallization | Copper (Cu) | 7440-50-8 | | 0.060 | mg | 8971 | 93 |
| | | | | supplier | metallization | Tantalum (Ta) | 7440-25-7 | | 0.007 | mg | 1047 | 11 |
| | | | | supplier | metallization | Titanium (Ti) | 7440-32-6 | | 0.009 | mg | 1346 | 14 |
| | | | | supplier | Passivation | Silicon Nitride | 12033-89-5 | | 0.016 | mg | 2392 | 25 |
| | | | | supplier | Passivation | Silicon Oxide | 7631-86-9 | | 0.096 | mg | 14354 | 149 |
| Lead-frame | M-011 Other inorganic materials | 130.716 | mg | supplier | alloy | Copper (Cu) | 7440-50-8 | | 125.749 | mg | 962000 | 194960 |
| | | | | supplier | alloy | Nickel (Ni) | 7440-02-0 | | 3.921 | mg | 30000 | 6080 |
| | | | | supplier | alloy | Silicium (Si) | 7440-21-3 | | 0.850 | mg | 6500 | 1317 |
| | | | | supplier | alloy | Magnesium (Mg) | 7439-95-4 | | 0.196 | mg | 1500 | 304 |
| Lead-frame Coating | M-011 Other inorganic materials | 0.925 | mg | supplier | coating | Nickel (Ni) | 7440-02-0 | | 0.848 | mg | 916800 | 1315 |
| | | | | supplier | coating | Palladium (Pd) | 7440-05-3 | | 0.054 | mg | 58700 | 84 |
| | | | | supplier | coating | Gold (Au) | 7440-57-5 | | 0.023 | mg | 24500 | 35 |
| Die Attach | M-011 Other inorganic materials | 3.617 | mg | supplier | glue or soft solder | Silver (Ag) | 7440-22-4 | | 2.848 | mg | 787500 | 4416 |
| | | | | supplier | glue or soft solder | Urethane acrylate oligomer | Proprietary | | 0.253 | mg | 70000 | 392 |
| | | | | supplier | glue or soft solder | Méthacrylate | Proprietary | | 0.253 | mg | 70000 | 392 |
| | | | | supplier | glue or soft solder | Acrylate | Proprietary | | 0.253 | mg | 70000 | 392 |
| Wires | M-011 Other inorganic materials | 2.018 | mg | supplier | glue or soft solder | NMP | 872-50-4 | | 0.009 | mg | 2500 | 14 |
| | | | | supplier | Bonding wire | Gold (Au) | 7440-57-5 | | 2.018 | mg | 1000000 | 3129 |
| Encapsulation | M-011 Other inorganic materials | 501.028 | mg | supplier | Moulding Compound | Solid Epoxy Resin | Proprietary | | 34.333 | mg | 68525 | 53229 |
| | | | | supplier | Moulding Compound | Phenol Resin | Proprietary | | 24.524 | mg | 48947 | 38021 |
| | | | | supplier | Moulding Compound | Silica, vitreous | 60676-86-0 | | 434.814 | mg | 867844 | 674130 |
| | | | | supplier | Moulding Compound | Carbon-black | 1333-86-4 | | 2.452 | mg | 4895 | 3802 |
| | | | | supplier | Bismuth/Bismuth Compounds | Bismuth | 7440-69-9 | | 4.905 | mg | 9789 | 7604 |
| Finishing | M-011 Other inorganic materials | 0.009 | mg | supplier | connections coating | Nickel (Ni) | 7440-02-0 | | 0.008 | mg | 916800 | 13 |
| | | | | supplier | connections coating | Palladium (Pd) | 7440-05-3 | | 0.001 | mg | 58700 | 1 |
| | | | | supplier | connections coating | Gold (Au) | 7440-57-5 | | 0.000 | mg | 24500 | 0 |