

| Product | | | | |
|-----------------|---------------|---|-----------|------------------|
| Mfr Item Number | Mfr Item Name | Version | Mfr Site | Date |
| STM32L4P5CGT6 | 705B*471XXXZ | A | 998Z | 2024-04-01 |
| | Amount | UoM | Unit type | ST ECOPACK Grade |
| | 180.91 | 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 | |
| Not Applicable ; if coating is used or other bulk termination : add in comments | Tin (Sn), immersion | Copper Alloy | | |

| Package Designator | Size | Nbr of instances | Shape | |
|--------------------|--|------------------|--------|--|
| QFP | 7x7 | 48 | L bend | |
| Comment | Package : 5B LQFP 48 7x7x1.4 1 0110596 | | | |

| 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-14th June 2023 | | | | |
|--|-------------------------|------------------------|-------------|----------------|
| 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 | 705B*471XXXZ | | | | 6000001.0 | 1000002.0 | | | | |
|--|---------------------------------|--|-------------|-------------------|---------------------------------|--------------------|--------------|----------|-------------------|---------------|---|--------------------------------|-------|----|--------|-------|
| 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 | 17.868 | mg | #N/A | die | Silicon (Si) | 7440-21-3 | | 17.187 | mg | 961887 | 95006 | | | | |
| | | | | #N/A | metallization | Aluminium (Al) | 7429-90-5 | | 0.033 | mg | 1847 | 182 | | | | |
| | | | | #N/A | metallization | Copper (Cu) | 7440-50-8 | | 0.289 | mg | 16174 | 1598 | | | | |
| | | | | #N/A | metallization | Cobalt (Co) | 7440-48-4 | | 0.001 | mg | 56 | 6 | | | | |
| | | | | #N/A | metallization | Tantalum (Ta) | 7440-25-7 | | 0.093 | mg | 5205 | 514 | | | | |
| | | | | #N/A | metallization | Titanium (Ti) | 7440-32-6 | | 0.003 | mg | 168 | 17 | | | | |
| | | | | #N/A | metallization | Tungsten (W) | 7440-33-7 | | 0.002 | mg | 112 | 11 | | | | |
| | | | | supplier | Passivation | Silicon Nitride | 12033-89-5 | | 0.073 | mg | 4086 | 404 | | | | |
| | | | | #N/A | Passivation | Silicon Oxide | 7631-86-9 | | 0.187 | mg | 10466 | 1034 | | | | |
| | | | | Glue Epoxy (3230) | M-011 Other inorganic materials | 2.393 | mg | Supplier | Metals | Silver | 7440-22-4 | | 1.950 | mg | 815000 | 10780 |
| Supplier | Plastics/polymers | 2,2'-(Methylenebis(phenyleneoxy)methylene)di | 39817-09-9 | | | | | | 0.072 | mg | 30000 | 397 | | | | |
| Supplier | Organic Compounds | Dihydro-3-(tetrapropenyl)furan-2,5-dione | 26544-38-7 | | | | | | 0.072 | mg | 30000 | 397 | | | | |
| Supplier | Organic Compounds | Epoxy resin | Proprietary | | | | | | 0.072 | mg | 30000 | 397 | | | | |
| Supplier | Organic Compounds | Dodecylloxirane | 3234-28-4 | | | | | | 0.072 | mg | 30000 | 397 | | | | |
| Supplier | Organic Compounds | Hexahydromethylphthalic anhydride | 25550-51-0 | | | | | | 0.072 | mg | 30000 | 397 | | | | |
| Supplier | Organic Compounds | Epoxy resin modifier | Proprietary | | | | | | 0.072 | mg | 30000 | 397 | | | | |
| Supplier | Metallic compounds | Copper oxide | 1317-38-0 | | | | | | 0.012 | mg | 5000 | 66 | | | | |
| Encapsulation (EME-G631SHQ) | M-011 Other inorganic materials | 108.031 | mg | | | | | Supplier | Plastics/polymers | Epoxy Resin A | Proprietary | | 2.269 | mg | 21000 | 12541 |
| | | | | | | | | Supplier | Plastics/polymers | Epoxy Resin B | Proprietary | | 2.269 | mg | 21000 | 12541 |
| | | | | Supplier | Plastics/polymers | Phenol Resin | Proprietary | | 6.050 | mg | 56000 | 33442 | | | | |
| | | | | Supplier | Glass | Silica(Amorphous)A | 60676-86-0 | | 84.313 | mg | 780450 | 466062 | | | | |
| | | | | Supplier | Glass | Silica(Amorphous)B | 7631-86-9 | | 12.458 | mg | 115320 | 68866 | | | | |
| | | | | Supplier | Non-metals | Carbon Black | 1333-86-4 | | 0.673 | mg | 6230 | 3720 | | | | |
| Bonding Wire (Au) | Bonding Wire | 0.535 | mg | Supplier | Metals | Gold | 7440-57-5 | | 0.535 | mg | 1000000 | 2955 | | | | |
| Plating anode (Sn) | M-011 Other inorganic materials | 1.078 | mg | Supplier | Metals | Tin | 7440-31-5 | | 1.078 | mg | 1000000 | 5961 | | | | |
| Leadframe (C194 + Ag) | Copper & its alloys | 51.000 | mg | Supplier | Metals | Copper | 7440-50-8 | | 49.582 | mg | 972200 | 274079 | | | | |
| | | | | Supplier | Metals | Iron | 7439-89-6 | | 1.168 | mg | 22900 | 6456 | | | | |
| | | | | Supplier | Metals | Zinc | 7440-66-6 | | 0.077 | mg | 1500 | 423 | | | | |
| | | | | Supplier | Non-Metals | Phosphorus | 7723-14-0 | | 0.015 | mg | 300 | 85 | | | | |
| | | | | Supplier | Metals | Silver | 7440-22-4 | | 0.158 | mg | 3100 | 874 | | | | |