

Supplier Name: **Texas Instruments Inc. (DUNS# 00-732-1904)**
 Contact Info: ti.com/support
 Form/Declaration Type: **Distribute - RoHS and IEC 62474 DB**
 Created on: **06/12/2022**

Details for "TXU0204RUTR"

Current Product Information

| TI part number | Lead finish/Ball material | MSL rating/peak reflow | Assembly site | Package Pins | Package body size (mm) | Total device mass (mg)* |
|----------------|---------------------------|------------------------|---------------|----------------|------------------------|-------------------------|
| TXU0204RUTR | NIPDAU | Level-1-260C-UNLIM | Ext-Mfg | RUT 12 | 2x1.7x0.5 | 5.2 |

*Total Device Mass
 The summary mass is a rounded value and will be within approximately +/- 10% of the detailed mass value.

Environmental Ratings Information

| RoHS | REACH | Green | IEC 62474 DB |
|------|-------|-------|--------------|
| Yes | Yes | Yes | Yes |

Component Information

| Component | Substance | CAS Number | Amount (mg) | Homogeneous Material Level | | Component Level | |
|------------------------------------|--|----------------------|-----------------|----------------------------|----------------|------------------|----------------|
| | | | | Percentage % | ppm | Percentage % | ppm |
| Bond Wire | | | | | | | |
| Not Categorized | Proprietary Materials | | 0.000004 | 0.00828 | 83 | 0.000077 | 1 |
| Precious Metals | Gold | 7440-57-5 | 0.048306 | 99.99172 | 999917 | 0.933635 | 9336 |
| Sub-Total | | | 0.04831 | 100 | 1000000 | 0.933713 | 9337 |
| Die Attach Adhesive | | | | | | | |
| Other Inorganic Materials | Inorganic Filler | | 0.000357 | 0.999216 | 9992 | 0.0069 | 69 |
| Other Inorganic Materials | Silica | 7631-86-9 | 0.005002 | 14.000224 | 140002 | 0.096676 | 967 |
| Thermoplastics | Epoxy | 85954-11-6 | 0.030369 | 85.00056 | 850006 | 0.586958 | 5870 |
| Sub-Total | | | 0.035728 | 100 | 1000000 | 0.690534 | 6905 |
| Lead Frame | | | | | | | |
| Copper and Its Alloys | Copper | 7440-50-8 | 2.4375 | 97.5 | 975000 | 47.110844 | 471108 |
| Nickel and Its Alloys | Nickel | 7440-02-0 | 0.035 | 1.4 | 14000 | 0.676463 | 6765 |
| Other Nonferrous Metals and Alloys | Proprietary Metals (including Ag and Cu) | 7440-22-4, 7440-50-8 | 0.025625 | 1.025 | 10250 | 0.495268 | 4953 |
| Precious Metals | Gold | 7440-57-5 | 0.000625 | 0.025 | 250 | 0.01208 | 121 |
| Precious Metals | Palladium | 7440-05-3 | 0.00125 | 0.05 | 500 | 0.024159 | 242 |
| Sub-Total | | | 2.5 | 100 | 1000000 | 48.318814 | 483188 |
| Lead Frame Plating | | | | | | | |
| Nickel and Its Alloys | Nickel | 7440-02-0 | 0.034367 | 95.120399 | 951204 | 0.664229 | 6642 |
| Precious Metals | Gold | 7440-57-5 | 0.000282 | 0.780515 | 7805 | 0.00545 | 55 |
| Precious Metals | Palladium | 7440-05-3 | 0.001481 | 4.099087 | 40991 | 0.028624 | 286 |
| Sub-Total | | | 0.03613 | 100 | 1000000 | 0.698304 | 6983 |
| Mold Compound | | | | | | | |
| Other Inorganic Materials | Fused Silica | 60676-86-0 | 2.162549 | 90.000008 | 900000 | 41.796722 | 417967 |
| Other Organic Materials | Proprietary Non Halide Flame Retardant | Trade Secret | 0.028834 | 1.200001 | 12000 | 0.55729 | 5573 |
| Other Plastics and Rubber | Carbon Black | 1333-86-4 | 0.012014 | 0.499993 | 5000 | 0.232201 | 2322 |
| Other Plastics and Rubber | Organic Phosphorus | 1330-78-5 | 0.012014 | 0.499993 | 5000 | 0.232201 | 2322 |
| Thermoplastics | Epoxy | 85954-11-6 | 0.187421 | 7.800004 | 78000 | 3.622384 | 36224 |
| Sub-Total | | | 2.402832 | 100 | 1000000 | 46.440797 | 464408 |
| Semiconductor Device | | | | | | | |
| Ceramics / Glass | Doped Silicon | 7440-21-3 | 0.150968 | 100 | 1000000 | 2.917838 | 29178 |
| Sub-Total | | | 0.150968 | 100 | 1000000 | 2.917838 | 29178 |
| Total | | | 5.173968 | | | 100 | 1000000 |

Important Note
 The ppm calculations are at the homogeneous material level and are maximum concentration values. The ppm displayed represents the homogeneous material with the highest ppm for that substance. The amount (mg) calculations represent the maximum total amount of each substance within the component.
 The ppm calculations are at the component level and are average concentration values. The amount (mg) calculations represent the average total amount of each substance within the component.
[See Glossary of Terms for more details.](#)

Important Part Information
 There is a remote possibility the Customer Part Number (CPN) your company uses could reference more than one TI part number. This is due to two or more users (EMSLs or subcontractors) using the same CPN for different TI part numbers. If this occurs, please check your Customer Part Number and cross reference it with the TI part number seen on this page.

Product Content Methodology
[For an explanation of the methods used to determine material weights, See Product Content Methodology](#)

Material Declaration Certificate for Semiconductor IC Packaged Products

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 For further environmental statements, please go to www.ti.com/ecoinfo
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RoHS: Means TI semiconductor products that are compliant with the current RoHS requirement that the maximum concentration values of the ten substances listed in RoHS Annex II do not exceed 0.1 % by weight in homogeneous materials. Where designed to be soldered at high temperatures, TI semiconductor products labeled as "RoHS Compliant" are suitable for use in specified lead-free processes. TI may also reference these types of semiconductor products as "Pb-Free." These TI semiconductor products are also fully compliant with GADSL and the IEC 62474 database for electronic requirements.

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Green: Means the content of Chlorine (Cl) and Bromine (Br)-based flame retardants meet J5709B low halogen requirements of <=1 000ppm threshold; Antimony trioxide (Sb2O3) contained in halogen based flame retardant materials meets the <=1 000ppm threshold requirement; and Beryllium Oxide (BeO) is <=1000ppm.