

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: 05/31/2022

Details for "LM2904AVQPWRG4Q1"

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)*
LM2904AVQPWRG4Q1	NIPDAU	Level-1-260C-UNLIM	TI MALAYSIA A/T	PW 8	4.4x3x1.15	39.4

***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							
Copper and Its Alloys	Copper	7440-50-8	0.032391	97.583828	975838	0.08225	823
Not Categorized	Proprietary Materials		0.000004	0.012051	121	0.00001	0
Precious Metals	Palladium	7440-05-3	0.000797	2.401109	24011	0.002024	20
Precious Metals	Silver	7440-22-4	0.000001	0.003013	30	0.000003	0
Sub-Total			0.033193	100	1000000	0.084287	843
Die Attach Adhesive							
Precious Metals	Silver	7440-22-4	0.222929	80.000072	800001	0.566081	5661
Thermoplastics	Epoxy	8595-4-11-6	0.055732	19.999928	199999	0.14152	1415
Sub-Total			0.278661	100	1000000	0.707601	7076
Lead Frame							
Copper and Its Alloys	Copper	7440-50-8	15.79824	97.461523	974615	40.116309	401163
Copper and Its Alloys	Iron	7439-89-6	0.3726	2.298621	22986	0.946139	9461
Copper and Its Alloys	Phosphorus	7723-14-0	0.00486	0.029982	300	0.012341	123
Other Nonferrous Metals and Alloys	Lead	7439-92-1	0.00486	0.029982	300	0.012341	123
Other Nonferrous Metals and Alloys	Tin	7440-31-5	0.00486	0.029982	300	0.012341	123
Zinc and Its Alloys	Zinc	7440-66-6	0.0243	0.14991	1499	0.061705	617
Sub-Total			16.20972	100	1000000	41.161176	411612
Lead Frame Plating							
Nickel and Its Alloys	Nickel	7440-02-0	0.722912	95.12	951200	1.835683	18357
Precious Metals	Gold	7440-57-5	0.005928	0.78	7800	0.015053	151
Precious Metals	Palladium	7440-05-3	0.03116	4.1	41000	0.079124	791
Sub-Total			0.76	100	1000000	1.92986	19299
Mold Compound							
Other Inorganic Materials	Fused Silica	60676-86-0	18.221249	86.000003	860000	46.26903	462690
Other Plastics and Rubber	Carbon Black	1333-86-4	0.063562	0.299998	3000	0.161402	1614
Thermoplastics	Epoxy	8595-4-11-6	2.902687	13.699999	137000	7.370763	73708
Sub-Total			21.187498	100	1000000	53.801196	538012
Semiconductor Device							
Ceramics / Glass	Doped Silicon	7440-21-3	0.912019	100	1000000	2.31588	23159
Sub-Total			0.912019	100	1000000	2.31588	23159
Total			39.381091			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 (EMSI 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

TI certifies that the material content information provided by TI is representative and accurate to the best of their knowledge based on material information provided by its suppliers and their combination into finished IC packaged products. TI semiconductor products designated to be "Pb-free", "Green" or "RoHS Exempt" fully meets the latest EU RoHS Directive requirements along with other legislation as seen in the former JIG-101 list that has been transferred to the IEC 62474 database.

Important Information/Disclaimer

TI bases its material content information on information provided by third-party suppliers and has taken, and continues to take, reasonably diligent steps to provide any required or available information. TI may not have conducted destructive testing or chemical analysis on incoming materials and chemicals. TI and TI suppliers may consider certain information to be proprietary, and thus certain information may not be available for release by TI. The material content information is provided by TI "as is."
[For additional information, please contact TI customer support.](#)

Signature: [\(click here for a fuller statement with a signed certificate\)](#)

Name/Title: Hubie Payne, Vice President, Worldwide SC Quality
 For further environmental statements, please go to www.ti.com/ecoinfo
 Created on: 05/31/2022

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.

RoHS Exempt: Means TI semiconductor products that contain lead (Pb) above the RoHS Annex II threshold, but that fall within one of the specific RoHS exemptions noted above or documented in <http://www.ti.com/lit/pdf/szzq088>

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.