

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: 06/08/2022

Details for "TLC2272QPWRG4Q1"

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)*
TLC2272QPWRG4Q1	NIPDAU	Level-1-260C-UNLIM	TI MALAYSIA A/T	PW 8	4.4x3x1.15	34.6

*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							
Precious Metals	Gold	7440-57-5	0.059659	99.998324	999983	0.172437	1724
Precious Metals	Silver	7440-22-4	0.000001	0.001676	17	0.000003	0
Sub-Total			0.05966	100	1000000	0.17244	1724
Die Attach Adhesive							
Precious Metals	Silver	7440-22-4	0.184747	70.000076	700001	0.533989	5340
Thermoplastics	Epoxy	85954-11-6	0.079177	29.999924	299999	0.228852	2289
Sub-Total			0.263924	100	1000000	0.76284	7628
Lead Frame							
Copper and Its Alloys	Copper	7440-50-8	12.6633	97.41	974100	36.601736	366017
Copper and Its Alloys	Iron	7439-89-6	0.312	2.4	24000	0.901798	9018
Copper and Its Alloys	Phosphorus	7723-14-0	0.0039	0.03	300	0.011272	113
Other Nonferrous Metals and Alloys	Lead	7439-92-1	0.0039	0.03	300	0.011272	113
Other Nonferrous Metals and Alloys	Tin	7440-31-5	0.0039	0.03	300	0.011272	113
Zinc and Its Alloys	Zinc	7440-66-6	0.013	0.1	1000	0.037575	376
Sub-Total			13	100	1000000	37.574927	375749
Lead Frame Plating							
Nickel and Its Alloys	Nickel	7440-02-0	0.247312	95.12	951200	0.714825	7148
Precious Metals	Gold	7440-57-5	0.002028	0.78	7800	0.005862	59
Precious Metals	Palladium	7440-05-3	0.01066	4.1	41000	0.030811	308
Sub-Total			0.26	100	1000000	0.751499	7515
Mold Compound							
Other Inorganic Materials	Fused Silica	60676-86-0	17.032504	85.500001	855000	49.230392	492304
Other Nonferrous Metals and Alloys	Metal Hydroxide	Trade Secret	0.597632	3.000001	30000	1.727383	17274
Other Organic Materials	Chlorine	7782-50-5	0.003984	0.019999	200	0.011515	115
Other Plastics and Rubber	Carbon Black	1333-86-4	0.059763	0.299999	3000	0.172738	1727
Other Plastics and Rubber	Organic Phosphorus	1330-78-5	0.019921	0.1	1000	0.057579	576
Thermoplastics	Epoxy	85954-11-6	2.207253	11.079999	110800	6.379798	63798
Sub-Total			19.921057	100	1000000	57.579405	575794
Semiconductor Device							
Ceramics / Glass	Doped Silicon	7440-21-3	1.092898	100	1000000	3.158889	31589
Sub-Total			1.092898	100	1000000	3.158889	31589
Total			34.597539			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: \(click here for a fuller statement with a signed certificate\)](#)

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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.

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 JS709B 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.