

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: 06/11/2022

Details for "TPS60204DGS"

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)*
TPS60204DGS	NIPDAU	Level-1-260C-UNLIM	Ext-Mfg	DGS 10	3x3x1	32.1

*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	0.004506	45	0.000012	0
Precious Metals	Gold	7440-57-5	0.088763	99.995494	999955	0.276119	2761
Sub-Total			0.088767	100	1000000	0.276131	2761
Die Attach Adhesive							
Precious Metals	Silver	7440-22-4	0.324758	72.999996	730000	1.010239	10102
Thermoplastics	Epoxy	85954-11-6	0.120116	27.000004	270000	0.37365	3737
Sub-Total			0.444874	100	1000000	1.383889	13839
Lead Frame							
Copper and Its Alloys	Copper	7440-50-8	16.76025	97.5	975000	52.136848	521368
Magnesium and Its Alloys	Magnesium	7439-95-4	0.008595	0.05	500	0.026737	267
Nickel and Its Alloys	Nickel	7440-02-0	0.37818	2.2	22000	1.176421	11764
Other Inorganic Materials	Silicon	7440-21-3	0.042975	0.25	2500	0.133684	1337
Sub-Total			17.19	100	1000000	53.47369	534737
Lead Frame Plating							
Nickel and Its Alloys	Nickel	7440-02-0	0.228288	95.12	951200	0.710146	7101
Precious Metals	Gold	7440-57-5	0.001872	0.78	7800	0.005823	58
Precious Metals	Palladium	7440-05-3	0.00984	4.1	41000	0.03061	306
Sub-Total			0.24	100	1000000	0.746579	7466
Mold Compound							
Other Inorganic Materials	Fused Silica	60676-86-0	10.632033	85.000001	850000	33.073533	330735
Other Plastics and Rubber	Carbon Black	1333-86-4	0.037525	0.300001	3000	0.116731	1167
Thermoplastics	Epoxy	85954-11-6	1.838716	14.699998	147000	5.719775	57198
Sub-Total			12.508274	100	1000000	38.910039	389100
Semiconductor Device							
Ceramics / Glass	Doped Silicon	7440-21-3	1.674735	100	1000000	5.209672	52097
Sub-Total			1.674735	100	1000000	5.209672	52097
Total			32.14665			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: 06/11/2022

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 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.