

Supplier Name: Texas Instruments Inc. (DUNS# 00-732-1904)  
 Contact Info: [ti.com/support](http://ti.com/support)  
 Form/Declaration Type: Distribute - RoHS and IEC 62474 DB  
 Created on: 05/17/2022

Details for "TPS77050DBVRG4"

**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)*
TPS77050DBVRG4	NIPDAU	Level-1-260C-UNLIM	Ext-Mfg	DBV   5	2.9x1.6x1.45	18.4

\*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
<b>Bond Wire</b>							
Precious Metals	Gold	7440-57-5	0.033802	100	1000000	0.183466	1835
Sub-Total			0.033802	100	1000000	0.183466	1835
<b>Die Attach Adhesive</b>							
Precious Metals	Silver	7440-22-4	0.238436	80	800000	1.294151	12942
Thermoplastics	Epoxy	85954-11-6	0.059609	20	200000	0.323538	3235
Sub-Total			0.298045	100	1000000	1.617689	16177
<b>Lead Frame</b>							
Copper and Its Alloys	Copper	7440-50-8	6.290748	97.38	973800	34.144082	341441
Copper and Its Alloys	Iron	7439-89-6	0.153748	2.38	23800	0.834493	8345
Copper and Its Alloys	Phosphorus	7723-14-0	0.005426	0.083994	840	0.029451	295
Other Nonferrous Metals and Alloys	Lead	7439-92-1	0.001938	0.03	300	0.010519	105
Zinc and Its Alloys	Zinc	7440-66-6	0.00814	0.126006	1260	0.044181	442
Sub-Total			6.46	100	1000000	35.062725	350627
<b>Lead Frame Plating</b>							
Nickel and Its Alloys	Nickel	7440-02-0	0.110339	95.119828	951198	0.598883	5989
Precious Metals	Gold	7440-57-5	0.000905	0.780172	7802	0.004912	49
Precious Metals	Palladium	7440-05-3	0.004756	4.1	41000	0.025814	258
Sub-Total			0.116	100	1000000	0.629609	6296
<b>Mold Compound</b>							
Other Inorganic Materials	Fused Silica	60676-86-0	9.3478	85.999999	860000	50.736741	507367
Other Plastics and Rubber	Carbon Black	1333-86-4	0.054348	0.500003	5000	0.294983	2950
Thermoplastics	Epoxy	85954-11-6	1.467387	13.499998	135000	7.964487	79645
Sub-Total			10.869535	100	1000000	58.996211	589962
<b>Semiconductor Device</b>							
Ceramics / Glass	Doped Silicon	7440-21-3	0.646742	100	1000000	3.5103	35103
Sub-Total			0.646742	100	1000000	3.5103	35103
<b>Total</b>			18.424124			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](http://www.ti.com/ecoinfo)  
 Created on: 05/17/2022

**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/szq088>

**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 <=1000ppm threshold requirement; and Beryllium Oxide (BeO) is <=1000ppm.