

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: 06/14/2022

Details for "TPS7993DDCR"

**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)*
TPS7993DDCR	NIPDAU	Level-1-260C-UNLIM	Ext-Mfg	DDC   5	2.9x1.6x0.85	13.4

\*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	0.056462	100	1000000	0.422254	4223
Sub-Total			0.056462	100	1000000	0.422254	4223
<b>Die Attach Adhesive</b>							
Other Inorganic Materials	Aluminum Oxide	1344-28-1	0.030488	29.999902	299999	0.228006	2280
Other Inorganic Materials	Silica	7631-86-9	0.004573	4.499788	44998	0.034199	342
Other Organic Materials	Chlorine	7782-50-5	0.000036	0.035424	354	0.000269	3
Thermoplastics	Epoxy	85954-11-6	0.06653	65.464886	654649	0.497548	4975
Sub-Total			0.101627	100	1000000	0.760023	7600
<b>Lead Frame</b>							
Copper and Its Alloys	Copper	7440-50-8	6.579802	96.210001	962100	49.20743	492074
Copper and Its Alloys	Iron	7439-89-6	0.177814	2.6	26000	1.329792	13298
Copper and Its Alloys	Phosphorus	7723-14-0	0.010259	0.150007	1500	0.076723	767
Nickel and Its Alloys	Nickel	7440-02-0	0.054712	0.8	8000	0.409167	4092
Other Nonferrous Metals and Alloys	Lead	7439-92-1	0.000684	0.010001	100	0.005115	51
Precious Metals	Gold	7440-57-5	0.002188	0.031993	320	0.016363	164
Precious Metals	Palladium	7440-05-3	0.013541	0.197997	1980	0.101267	1013
Sub-Total			6.839	100	1000000	51.145857	511459
<b>Lead Frame Plating</b>							
Nickel and Its Alloys	Nickel	7440-02-0	0.000951	95.1	951000	0.007112	71
Precious Metals	Gold	7440-57-5	0.000008	0.8	8000	0.00006	1
Precious Metals	Palladium	7440-05-3	0.000041	4.1	41000	0.000307	3
Sub-Total			0.001	100	1000000	0.007479	75
<b>Mold Compound</b>							
Other Inorganic Materials	Fused Silica	60676-86-0	4.857991	84.999993	850000	36.330767	363308
Other Plastics and Rubber	Carbon Black	1333-86-4	0.017146	0.300003	3000	0.128227	1282
Thermoplastics	Epoxy	85954-11-6	0.840147	14.700004	147000	6.283088	62831
Sub-Total			5.715284	100	1000000	42.742082	427421
<b>Semiconductor Device</b>							
Ceramics / Glass	Doped Silicon	7440-21-3	0.658189	100	1000000	4.922305	49223
Sub-Total			0.658189	100	1000000	4.922305	49223
<b>Total</b>			13.371562			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**  
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[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](http://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.