

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: 05/06/2022

Details for "TLC081CD"

**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)*
TLC081CD	NIPDAU	Level-1-260C-UNLIM	TI TAIWAN A/T	D   8	3.91x4.9x1.58	84.5

\*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>							
Copper and Its Alloys	Copper	7440-50-8	0.039738	99.989935	999899	0.047048	470
Not Categorized	Proprietary Materials		0.000003	0.007549	75	0.000004	0
Precious Metals	Silver	7440-22-4	0.000001	0.002516	25	0.000001	0
Sub-Total			<b>0.039742</b>	<b>100</b>	<b>1000000</b>	<b>0.047053</b>	<b>471</b>
<b>Die Attach Adhesive</b>							
Precious Metals	Silver	7440-22-4	0.174059	79.999908	799999	0.20608	2061
Thermoplastics	Epoxy	85954-11-6	0.043515	20.000092	200001	0.05152	515
Sub-Total			<b>0.217574</b>	<b>100</b>	<b>1000000</b>	<b>0.2576</b>	<b>2576</b>
<b>Lead Frame</b>							
Copper and Its Alloys	Copper	7440-50-8	24.416166	97.425006	974250	28.90788	289079
Copper and Its Alloys	Iron	7439-89-6	0.601476	2.4	24000	0.712126	7121
Copper and Its Alloys	Phosphorus	7723-14-0	0.003759	0.014999	150	0.004451	45
Copper and Its Alloys	Tin	7440-31-5	0.007518	0.029998	300	0.008901	89
Copper and Its Alloys	Zinc	7440-66-6	0.025061	0.099998	1000	0.029671	297
Other Nonferrous Metals and Alloys	Lead	7439-92-1	0.007518	0.029998	300	0.008901	89
Sub-Total			<b>25.061498</b>	<b>100</b>	<b>1000000</b>	<b>29.67193</b>	<b>296719</b>
<b>Lead Frame Plating</b>							
Nickel and Its Alloys	Nickel	7440-02-0	0.036621	95.121951	951220	0.043358	434
Precious Metals	Gold	7440-57-5	0.0003	0.779241	7792	0.000355	4
Precious Metals	Palladium	7440-05-3	0.001578	4.098808	40988	0.001868	19
Sub-Total			<b>0.038499</b>	<b>100</b>	<b>1000000</b>	<b>0.045581</b>	<b>456</b>
<b>Mold Compound</b>							
Other Inorganic Materials	Fused Silica	60676-86-0	51.38617	88	880000	60.839413	608394
Other Plastics and Rubber	Carbon Black	1333-86-4	0.17518	0.3	3000	0.207407	2074
Other Plastics and Rubber	Organic Phosphorus	1330-78-5	0.321164	0.550001	5500	0.380247	3802
Thermoplastics	Epoxy	85954-11-6	6.510861	11.149999	111500	7.70863	77086
Sub-Total			<b>58.393375</b>	<b>100</b>	<b>1000000</b>	<b>69.135697</b>	<b>691357</b>
<b>Semiconductor Device</b>							
Ceramics / Glass	Doped Silicon	7440-21-3	0.711287	100	1000000	0.842139	8421
Sub-Total			<b>0.711287</b>	<b>100</b>	<b>1000000</b>	<b>0.842139</b>	<b>8421</b>
<b>Total</b>			<b>84.461975</b>			<b>100</b>	<b>1000000</b>

**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."

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[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)  
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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.