

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: 06/12/2022

Details for "TPS78401QWDRBRQ1"

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)*
TPS78401QWDRBRQ1	NIPDAU	Level-2-260C-1 YEAR	TI Semiconductor	DRB   8	3x3x0.9	23.5

\*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	0.037059	97.533951	975340	0.157719	1577
Not Categorized	Proprietary Materials		0.000004	0.010527	105	0.000017	0
Precious Metals	Gold	7440-57-5	0.00002	0.052637	526	0.000085	1
Precious Metals	Palladium	7440-05-3	0.000912	2.400253	24003	0.003881	39
Precious Metals	Silver	7440-22-4	0.000001	0.002632	26	0.000004	0
Sub-Total			<b>0.037996</b>	<b>100</b>	<b>1000000</b>	<b>0.161707</b>	<b>1617</b>
<b>Die Attach Adhesive</b>							
Precious Metals	Silver	7440-22-4	0.17365	80.000184	800002	0.739035	7390
Thermoplastics	Epoxy	85954-11-6	0.043412	19.999816	199998	0.184757	1848
Sub-Total			<b>0.217062</b>	<b>100</b>	<b>1000000</b>	<b>0.923791</b>	<b>9238</b>
<b>Lead Frame</b>							
Copper and Its Alloys	Copper	7440-50-8	10.14884	97.585	975850	43.192317	431923
Copper and Its Alloys	Iron	7439-89-6	0.2392	2.3	23000	1.018008	10180
Copper and Its Alloys	Phosphorus	7723-14-0	0.00156	0.015	150	0.006639	66
Zinc and Its Alloys	Zinc	7440-66-6	0.0104	0.1	1000	0.044261	443
Sub-Total			<b>10.4</b>	<b>100</b>	<b>1000000</b>	<b>44.261226</b>	<b>442612</b>
<b>Lead Frame Plating</b>							
Nickel and Its Alloys	Nickel	7440-02-0	0.242556	95.12	951200	1.032291	10323
Precious Metals	Gold	7440-57-5	0.001989	0.78	7800	0.008465	85
Precious Metals	Palladium	7440-05-3	0.010455	4.1	41000	0.044495	445
Sub-Total			<b>0.255</b>	<b>100</b>	<b>1000000</b>	<b>1.085251</b>	<b>10853</b>
<b>Mold Compound</b>							
Other Inorganic Materials	Fused Silica	60676-86-0	10.482484	87.999997	880000	44.612268	446123
Other Organic Materials	Chlorine	7782-50-5	0.000119	0.000999	10	0.000506	5
Other Plastics and Rubber	Carbon Black	1333-86-4	0.035736	0.300002	3000	0.152088	1521
Thermoplastics	Epoxy	85954-11-6	1.393575	11.699002	116990	5.930898	59309
Sub-Total			<b>11.911914</b>	<b>100</b>	<b>1000000</b>	<b>50.695761</b>	<b>506958</b>
<b>Semiconductor Device</b>							
Ceramics / Glass	Doped Silicon	7440-21-3	0.674892	100	1000000	2.872264	28723
Sub-Total			<b>0.674892</b>	<b>100</b>	<b>1000000</b>	<b>2.872264</b>	<b>28723</b>
<b>Total</b>			<b>23.496864</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.

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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](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.