

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: 06/12/2022

Details for "TPS7A0230PDQNR"

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)*
TPS7A0230PDQNR	NIPDAUAG	Level-1-260C-UNLIM	Ext-Mfg	DQN 4	1x1x0.37	1.1

*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		0.000001	0.012865	129	0.000094	1
Precious Metals	Gold	7440-57-5	0.007772	99.987135	999871	0.730067	7301
Sub-Total			0.007773	100	1000000	0.730161	7302
Die Attach Adhesive							
Other Inorganic Materials	Aluminum Oxide	1344-28-1	0.00931	30.001289	300013	0.87454	8745
Other Inorganic Materials	Silica	7631-86-9	0.001396	4.498582	44986	0.131134	1311
Other Organic Materials	Chlorine	7782-50-5	0.000011	0.035447	354	0.001033	10
Thermoplastics	Epoxy	85954-11-6	0.020315	65.464682	654647	1.9083	19083
Sub-Total			0.031032	100	1000000	2.915007	29150
Lead Frame							
Copper and Its Alloys	Copper	7440-50-8	0.545655	99.57208	995721	51.256388	512564
Magnesium and Its Alloys	Magnesium	7439-95-4	0.000548	0.1	1000	0.051477	515
Other Inorganic Materials	Silicon	7440-21-3	0.001644	0.3	3000	0.15443	1544
Precious Metals	Silver	7440-22-4	0.000153	0.02792	279	0.014372	144
Sub-Total			0.548	100	1000000	51.476666	514767
Lead Frame Plating							
Nickel and Its Alloys	Nickel	7440-02-0	0.01946	97.3	973000	1.827985	18280
Precious Metals	Gold	7440-57-5	0.00006	0.3	3000	0.005636	56
Precious Metals	Palladium	7440-05-3	0.00042	2.1	21000	0.039453	395
Precious Metals	Silver	7440-22-4	0.00006	0.3	3000	0.005636	56
Sub-Total			0.02	100	1000000	1.87871	18787
Mold Compound							
Other Inorganic Materials	Fused Silica	60676-86-0	0.322875	90.499989	905000	30.329432	303294
Other Plastics and Rubber	Carbon Black	1333-86-4	0.001784	0.500045	5000	0.167581	1676
Thermoplastics	Epoxy	85954-11-6	0.032109	8.999966	90000	3.016176	30162
Sub-Total			0.356768	100	1000000	33.513189	335132
Semiconductor Device							
Ceramics / Glass	Doped Silicon	7440-21-3	0.100987	100	1000000	9.486267	94863
Sub-Total			0.100987	100	1000000	9.486267	94863
Total			1.06456			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's 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/eoinfo
 Created on: 06/12/2022

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.