

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: 06/10/2022

Details for "TPS389020DSET"

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)*
TPS389020DSET	NIPDAUAG	Level-1-260C-UNLIM	Ext-Mfg	DSE 6	1.5x1.5x0.75	4.8

*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							
Precious Metals	Gold	7440-57-5	0.020153	100	1000000	0.419504	4195
Sub-Total			0.020153	100	1000000	0.419504	4195
Die Attach Adhesive							
Other Inorganic Materials	Aluminum Oxide	1344-28-1	0.010926	29.999176	299992	0.227435	2274
Other Inorganic Materials	Silica	7631-86-9	0.001639	4.500151	45002	0.034117	341
Other Organic Materials	Chlorine	7782-50-5	0.000013	0.035694	357	0.000271	3
Thermoplastics	Epoxy	85954-11-6	0.023843	65.464979	654650	0.496315	4963
Sub-Total			0.036421	100	1000000	0.758139	7581
Lead Frame							
Copper and Its Alloys	Copper	7440-50-8	1.732537	97.050022	970500	36.064452	360645
Copper and Its Alloys	Iron	7439-89-6	0.046415	2.599989	26000	0.966174	9662
Copper and Its Alloys	Phosphorus	7723-14-0	0.002678	0.150011	1500	0.055745	557
Zinc and Its Alloys	Zinc	7440-66-6	0.00357	0.199978	2000	0.074313	743
Sub-Total			1.7852	100	1000000	37.160684	371607
Lead Frame Plating							
Nickel and Its Alloys	Nickel	7440-02-0	0.061104	97.300912	973009	1.27194	12719
Precious Metals	Gold	7440-57-5	0.000188	0.299368	2994	0.003913	39
Precious Metals	Palladium	7440-05-3	0.001319	2.100352	21004	0.027456	275
Precious Metals	Silver	7440-22-4	0.000188	0.299368	2994	0.003913	39
Sub-Total			0.062799	100	1000000	1.307223	13072
Mold Compound							
Other Inorganic Materials	Fused Silica	60676-86-0	2.248035	84.400018	844000	46.795047	467950
Other Nonferrous Metals and Alloys	Metal Hydroxide	Trade Secret	0.139037	5.219992	52200	2.894191	28942
Other Plastics and Rubber	Carbon Black	1333-86-4	0.004794	0.179985	1800	0.099792	998
Other Plastics and Rubber	Organic Phosphorus	1330-78-5	0.002397	0.089993	900	0.049896	499
Thermoplastics	Epoxy	85954-11-6	0.269285	10.110011	101100	5.605431	56054
Sub-Total			2.663548	100	1000000	55.444357	554444
Semiconductor Device							
Ceramics / Glass	Doped Silicon	7440-21-3	0.235881	100	1000000	4.910094	49101
Sub-Total			0.235881	100	1000000	4.910094	49101
Total			4.804002			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
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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 (Sb203) contained in halogen based flame retardant materials meets the <=1 000ppm threshold requirement; and Beryllium Oxide (BeO) is <=1000ppm.