

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: 05/30/2022

Details for "D590UB926QSQX/NOPB"

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)*
D590UB926QSQX/NOPB	SN	Level-3-260C-168 HR	Texas Instruments Electronics	NKB 60	9 x 9 x 0.8	230.5

*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
Bond Wire							
Precious Metals	Gold	7440-57-5	2.380691	100	1000000	1.032805	10328
Sub-Total			2.380691	100	1000000	1.032805	10328
Die Attach Adhesive							
Precious Metals	Silver	7440-22-4	1.852035	75	750000	0.80346	8035
Thermoplastics	Epoxy	85954-11-6	0.617345	25	250000	0.26782	2678
Sub-Total			2.46938	100	1000000	1.07128	10713
Lead Frame							
Copper and Its Alloys	Copper	7440-50-8	131.520312	97.02	970200	57.056884	570569
Copper and Its Alloys	Iron	7439-89-6	3.52456	2.6	26000	1.529044	15290
Copper and Its Alloys	Phosphorus	7723-14-0	0.20334	0.15	1500	0.088214	882
Other Nonferrous Metals and Alloys	Lead	7439-92-1	0.040668	0.03	300	0.017643	176
Zinc and Its Alloys	Zinc	7440-66-6	0.27112	0.2	2000	0.117619	1176
Sub-Total			135.56	100	1000000	58.809404	588094
Lead Frame Plating							
Other Nonferrous Metals and Alloys	Tin	7440-31-5	0.2	100	1000000	0.086765	868
Sub-Total			0.2	100	1000000	0.086765	868
Mold Compound							
Other Inorganic Materials	Fused Silica	60676-86-0	75.738434	90.5	905000	32.857275	328573
Thermoplastics	Epoxy	85954-11-6	7.950443	9.5	95000	3.449106	34491
Sub-Total			83.688877	100	1000000	36.306381	363064
Semiconductor Device							
Ceramics / Glass	Doped Silicon	7440-21-3	6.208405	100	1000000	2.693365	26934
Sub-Total			6.208405	100	1000000	2.693365	26934
Total			230.507353			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/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 (Sb203) contained in halogen based flame retardant materials meets the <=1 000ppm threshold requirement; and Beryllium Oxide (BeO) is <=1000ppm.