

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: 05/20/2022

**Details for "BQ2018TS-E1TR"**

**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)*
BQ2018TS-E1TR	NIPDAU	Level-2-260C-1 YEAR	Ext-Mfg	PW   8	3x4.4x1.0	32.4

\*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>							
Not Categorized	Proprietary Materials		0.000008	0.007723	77	0.000025	0
Precious Metals	Gold	7440-57-5	0.103583	99.992277	999923	0.319372	3194
Sub-Total			0.103591	100	1000000	0.319397	3194
<b>Die Attach Adhesive</b>							
Other Inorganic Materials	Silica	7631-86-9	0.013472	2	20000	0.041538	415
Precious Metals	Silver	7440-22-4	0.464784	69	690000	1.433046	14330
Thermoplastics	Epoxy	85954-11-6	0.195344	29	290000	0.602295	6023
Sub-Total			0.6736	100	1000000	2.076878	20769
<b>Lead Frame</b>							
Copper and Its Alloys	Copper	7440-50-8	8.320218	95.197002	951970	25.653322	256533
Copper and Its Alloys	Iron	7439-89-6	0.00874	0.1	1000	0.026948	269
Magnesium and Its Alloys	Magnesium	7439-95-4	0.01311	0.15	1500	0.040421	404
Nickel and Its Alloys	Nickel	7440-02-0	0.3059	3.5	35000	0.943167	9432
Other Inorganic Materials	Silicon	7440-21-3	0.0437	0.5	5000	0.134738	1347
Other Nonferrous Metals and Alloys	Lead	7439-92-1	0.000262	0.002998	30	0.000808	8
Other Nonferrous Metals and Alloys	Manganese	7439-96-5	0.00437	0.05	500	0.013474	135
Zinc and Its Alloys	Zinc	7440-66-6	0.0437	0.5	5000	0.134738	1347
Sub-Total			8.74	100	1000000	26.947616	269476
<b>Lead Frame Plating</b>							
Nickel and Its Alloys	Nickel	7440-02-0	0.114144	95.12	951200	0.351935	3519
Precious Metals	Gold	7440-57-5	0.000936	0.78	7800	0.002886	29
Precious Metals	Palladium	7440-05-3	0.00492	4.1	41000	0.01517	152
Sub-Total			0.12	100	1000000	0.36999	3700
<b>Mold Compound</b>							
Other Inorganic Materials	Fused Silica	60676-86-0	17.50278	85	850000	53.965468	539655
Other Plastics and Rubber	Carbon Black	1333-86-4	0.061775	0.300002	3000	0.190468	1905
Thermoplastics	Epoxy	85954-11-6	3.026951	14.699998	147000	9.33285	93329
Sub-Total			20.591506	100	1000000	63.488786	634888
<b>Semiconductor Device</b>							
Ceramics / Glass	Doped Silicon	7440-21-3	2.204599	100	1000000	6.797333	67973
Sub-Total			2.204599	100	1000000	6.797333	67973
<b>Total</b>			32.433296			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 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: \(click here for a fuller statement with a signed certificate\)](#)

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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.