

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: 05/20/2022

Details for "BQ20145N-D120TRG4"

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)*
BQ20145N-D120TRG4	NIPDAU	Level-2-260C-1 YEAR	TI MALAYSIA A/T	D 16	9x3.9x1.75	218.2

*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							
Other Nonferrous Metals and Alloys	Yttrium	7440-65-5	0.000001	0.000688	7	0	0
Precious Metals	Gold	7440-57-5	0.145281	99.997935	999979	0.066578	666
Precious Metals	Silver	7440-22-4	0.000002	0.001377	14	0.000001	0
Sub-Total			0.145284	100	1000000	0.066579	666
Die Attach Adhesive							
Other Inorganic Materials	Silica	7631-86-9	0.025183	1.999997	20000	0.011541	115
Precious Metals	Silver	7440-22-4	0.868815	69.00001	690000	0.39815	3981
Thermoplastics	Epoxy	85954-11-6	0.365154	28.999994	290000	0.167338	1673
Sub-Total			1.259152	100	1000000	0.577029	5770
Lead Frame							
Copper and Its Alloys	Copper	7440-50-8	102.024208	97.24	972400	46.754414	467544
Copper and Its Alloys	Iron	7439-89-6	2.72792	2.6	26000	1.250118	12501
Copper and Its Alloys	Phosphorus	7723-14-0	0.15738	0.15	1500	0.072122	721
Other Nonferrous Metals and Alloys	Lead	7439-92-1	0.010492	0.01	100	0.004808	48
Sub-Total			104.92	100	1000000	48.081463	480815
Lead Frame Plating							
Nickel and Its Alloys	Nickel	7440-02-0	0.827544	95.12	951200	0.379237	3792
Precious Metals	Gold	7440-57-5	0.006786	0.78	7800	0.00311	31
Precious Metals	Palladium	7440-05-3	0.03567	4.1	41000	0.016346	163
Sub-Total			0.87	100	1000000	0.398693	3987
Mold Compound							
Other Inorganic Materials	Fused Silica	60676-86-0	91.935863	86	860000	42.13125	421313
Other Plastics and Rubber	Carbon Black	1333-86-4	0.320706	0.3	3000	0.146969	1470
Other Plastics and Rubber	Organic Phosphorus	1330-78-5	0.587962	0.55	5500	0.269444	2694
Thermoplastics	Epoxy	85954-11-6	14.057635	13.15	131500	6.442162	64422
Sub-Total			106.902166	100	1000000	48.989826	489898
Semiconductor Device							
Ceramics / Glass	Doped Silicon	7440-21-3	4.116394	100	1000000	1.886411	18864
Sub-Total			4.116394	100	1000000	1.886411	18864
Total			218.212996			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."
[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 <=1000ppm threshold; Antimony trioxide (Sb2O3) contained in halogen based flame retardant materials meets the <=1000ppm threshold requirement; and Beryllium Oxide (BeO) is <=1000ppm.