

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: 05/16/2022

Details for "SN74ABT16823DGVR"

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)*
SN74ABT16823DGVR	NIPDAU	Level-1-260C-UNLIM	TI MALAYSIA A/T	DGV   56	4.4x11.3x1.05	130.3

\*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>							
Copper and Its Alloys	Copper	7440-50-8	0.350384	99.997431	999974	0.268809	2688
Copper and Its Alloys	Iron	7439-89-6	0.000002	0.000571	6	0.000002	0
Nickel and Its Alloys	Nickel	7440-02-0	0.000001	0.000285	3	0.000001	0
Other Nonferrous Metals and Alloys	Manganese	7439-96-5	0.000001	0.000285	3	0.000001	0
Precious Metals	Silver	7440-22-4	0.000005	0.001427	14	0.000004	0
Sub-Total			0.350393	100	1000000	0.268816	2688
<b>Die Attach Adhesive</b>							
Precious Metals	Silver	7440-22-4	0.961663	70.000015	700000	0.737773	7378
Thermoplastics	Epoxy	85954-11-6	0.412141	29.999985	300000	0.316188	3162
Sub-Total			1.373804	100	1000000	1.053962	10540
<b>Lead Frame</b>							
Copper and Its Alloys	Copper	7440-50-8	46.150223	97.424999	974250	35.405762	354058
Copper and Its Alloys	Iron	7439-89-6	1.13688	2.4	24000	0.872197	8722
Copper and Its Alloys	Phosphorus	7723-14-0	0.007106	0.015001	150	0.005452	55
Other Nonferrous Metals and Alloys	Lead	7439-92-1	0.014211	0.03	300	0.010902	109
Other Nonferrous Metals and Alloys	Tin	7440-31-5	0.014211	0.03	300	0.010902	109
Zinc and Its Alloys	Zinc	7440-66-6	0.04737	0.1	1000	0.036342	363
Sub-Total			47.370001	100	1000000	36.341557	363416
<b>Lead Frame Plating</b>							
Nickel and Its Alloys	Nickel	7440-02-0	2.026056	95.12	951200	1.55436	15544
Precious Metals	Gold	7440-57-5	0.016614	0.78	7800	0.012746	127
Precious Metals	Palladium	7440-05-3	0.08733	4.1	41000	0.066998	670
Sub-Total			2.13	100	1000000	1.634104	16341
<b>Mold Compound</b>							
Other Inorganic Materials	Fused Silica	60676-86-0	62.78024	85.5	855000	48.164062	481641
Other Nonferrous Metals and Alloys	Metal Hydroxide	Trade Secret	2.202815	2.999999	30000	1.689967	16900
Other Organic Materials	Chlorine	7782-50-5	0.014685	0.019999	200	0.011266	113
Other Plastics and Rubber	Carbon Black	1333-86-4	0.220282	0.300001	3000	0.168997	1690
Other Plastics and Rubber	Organic Phosphorus	1330-78-5	0.073427	0.1	1000	0.056332	563
Thermoplastics	Epoxy	85954-11-6	8.135732	11.08	110800	6.241612	62416
Sub-Total			73.427181	100	1000000	56.332236	563322
<b>Semiconductor Device</b>							
Ceramics / Glass	Doped Silicon	7440-21-3	5.695268	100	1000000	4.369325	43693
Sub-Total			5.695268	100	1000000	4.369325	43693
<b>Total</b>			130.346647			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.

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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)  
 Created on: 05/16/2022

**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.