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 "ISO7221ADG4"

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)*
ISO7221ADG4	NIPDAU	Level-1-260C-UNLIM	TI TAIWAN A/T	D | 8	4.9x3.9x1.75	176.5

***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

				Homogeneous Material Level		Component Level	
Component	**Substance**	**CAS Number**	**Amount (mg)**	**Percentage %**	**ppm**	**Percentage %**	**ppm**
Bond Wire							
Other Nonferrous Metals and Alloys	Yttrium	7440-65-5	0.000001	0.000623	6	0.000001	0
Precious Metals	Gold	7440-57-5	0.160449	99.99813	999981	0.090928	909
Precious Metals	Silver	7440-22-4	0.000002	0.001246	12	0.000001	0
Sub-Total			**0.160452**	**100**	**1000000**	**0.09093**	**909**
Die Attach Adhesive							
Precious Metals	Silver	7440-22-4	0.296103	75	750000	0.167805	1678
Thermoplastics	Epoxy	85954-11-6	0.098701	25	250000	0.055935	559
Sub-Total			**0.394804**	**100**	**1000000**	**0.22374**	**2237**
Die Attach Adhesive 2							
Precious Metals	Silver	7440-22-4	0.296103	75	750000	0.167805	1678
Thermoplastics	Epoxy	85954-11-6	0.098701	25	250000	0.055935	559
Sub-Total			**0.394804**	**100**	**1000000**	**0.22374**	**2237**
Lead Frame							
Copper and Its Alloys	Copper	7440-50-8	113.154477	97.05	970500	64.125941	641259
Copper and Its Alloys	Iron	7439-89-6	3.031444	2.6	26000	1.717954	17180
Copper and Its Alloys	Phosphorus	7723-14-0	0.174891	0.15	1500	0.099113	991
Zinc and Its Alloys	Zinc	7440-66-6	0.233188	0.2	2000	0.13215	1322
Sub-Total			**116.594**	**100**	**1000000**	**66.075159**	**660752**
Lead Frame Plating							
Nickel and Its Alloys	Nickel	7440-02-0	0.385236	95.12	951200	0.218318	2183
Precious Metals	Gold	7440-57-5	0.003159	0.78	7800	0.00179	18
Precious Metals	Palladium	7440-05-3	0.016605	4.1	41000	0.00941	94
Sub-Total			**0.405**	**100**	**1000000**	**0.229518**	**2295**
Mold Compound							
Other Inorganic Materials	Fused Silica	60676-86-0	47.835359	85.999999	860000	27.108847	271088
Other Plastics and Rubber	Carbon Black	1333-86-4	0.166868	0.300001	3000	0.094566	946
Other Plastics and Rubber	Organic Phosphorus	1330-78-5	0.305924	0.55	5500	0.173371	1734
Thermoplastics	Epoxy	85954-11-6	7.31436	13.15	131500	4.145132	41451
Sub-Total			**55.622511**	**100**	**1000000**	**31.521916**	**315219**
Semiconductor Device							
Ceramics / Glass	Doped Silicon	7440-21-3	1.442531	100	1000000	0.817499	8175
Sub-Total			**1.442531**	**100**	**1000000**	**0.817499**	**8175**
Semiconductor Device 2							
Ceramics / Glass	Doped Silicon	7440-21-3	1.442531	100	1000000	0.817499	8175
Sub-Total			**1.442531**	**100**	**1000000**	**0.817499**	**8175**
Total			176.456633			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 (EMSIs 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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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.