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:	**08/27/2022**

Details for "OPA656U"

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)*
OPA656U		Level-3-260C-168 HR	TI MALAYSIA A/T	D | 8	3.91x4.9x1.58	84.1

***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							
Precious Metals	Gold	7440-57-5	0.096088	99.376364	993764	0.114305	1143
Precious Metals	Palladium	7440-05-3	0.000602	0.622602	6226	0.000716	7
Precious Metals	Silver	7440-22-4	0.000001	0.001034	10	0.000001	0
Sub-Total			**0.096691**	**100**	**1000000**	**0.115022**	**1150**
Die Attach Adhesive							
Other Inorganic Materials	Silica	7631-86-9	0.003251	1.999815	19998	0.003867	39
Precious Metals	Silver	7440-22-4	0.11217	69.000092	690001	0.133436	1334
Thermoplastics	Epoxy	85954-11-6	0.047144	29.000092	290001	0.056082	561
Sub-Total			**0.162565**	**100**	**1000000**	**0.193385**	**1934**
Lead Frame							
Copper and Its Alloys	Copper	7440-50-8	24.25509	97.41	974100	28.853517	288535
Copper and Its Alloys	Iron	7439-89-6	0.5976	2.4	24000	0.710897	7109
Copper and Its Alloys	Phosphorus	7723-14-0	0.00747	0.03	300	0.008886	89
Other Nonferrous Metals and Alloys	Lead	7439-92-1	0.00747	0.03	300	0.008886	89
Other Nonferrous Metals and Alloys	Tin	7440-31-5	0.00747	0.03	300	0.008886	89
Zinc and Its Alloys	Zinc	7440-66-6	0.0249	0.1	1000	0.029621	296
Sub-Total			**24.9**	**100**	**1000000**	**29.620693**	**296207**
Lead Frame Plating							
Nickel and Its Alloys	Nickel	7440-02-0	0.355273	95.119946	951199	0.422628	4226
Precious Metals	Gold	7440-57-5	0.002913	0.77992	7799	0.003465	35
Precious Metals	Palladium	7440-05-3	0.015314	4.100134	41001	0.018217	182
Sub-Total			**0.3735**	**100**	**1000000**	**0.44431**	**4443**
Mold Compound							
Other Inorganic Materials	Fused Silica	60676-86-0	49.878319	86.000001	860000	59.334553	593346
Other Plastics and Rubber	Carbon Black	1333-86-4	0.173994	0.3	3000	0.206981	2070
Other Plastics and Rubber	Organic Phosphorus	1330-78-5	0.318989	0.55	5500	0.379465	3795
Thermoplastics	Epoxy	85954-11-6	7.626743	13.15	131500	9.072667	90727
Sub-Total			**57.998045**	**100**	**1000000**	**68.993666**	**689937**
Semiconductor Device							
Ceramics / Glass	Doped Silicon	7440-21-3	0.532054	100	1000000	0.632924	6329
Sub-Total			**0.532054**	**100**	**1000000**	**0.632924**	**6329**
Total			84.062855			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
Created on: 08/27/2022

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 (Sb203) contained in halogen based flame retardant materials meets the <=1 000ppm threshold requirement; and Beryllium Oxide (BeO) is <=1000ppm.