

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: 06/04/2022

Details for "OPA180IDGKR"

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)*
OPA180IDGKR	NIPDAU	Level-2-260C-1 YEAR	Ext-Mfg	DGK 8	3x3x1	24.9

*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							
Not Categorized	Proprietary Materials		0.000001	0.003345	33	0.000004	0
Precious Metals	Gold	7440-57-5	0.029894	99.996655	999967	0.120165	1202
Sub-Total			0.029895	100	1000000	0.120169	1202
Die Attach Adhesive							
Precious Metals	Silver	7440-22-4	0.215314	72.999922	729999	0.865497	8655
Thermoplastics	Epoxy	85954-11-6	0.079637	27.000078	270001	0.320117	3201
Sub-Total			0.294951	100	1000000	1.185614	11856
Lead Frame							
Copper and Its Alloys	Copper	7440-50-8	9.65634	94.67	946700	38.815562	388156
Copper and Its Alloys	Iron	7439-89-6	0.0204	0.2	2000	0.082002	820
Nickel and Its Alloys	Nickel	7440-02-0	0.3264	3.2	32000	1.312029	13120
Other Inorganic Materials	Silicon	7440-21-3	0.08976	0.88	8800	0.360808	3608
Other Nonferrous Metals and Alloys	Lead	7439-92-1	0.0051	0.05	500	0.0205	205
Zinc and Its Alloys	Zinc	7440-66-6	0.102	1	10000	0.410009	4100
Sub-Total			10.2	100	1000000	41.000911	410009
Lead Frame Plating							
Nickel and Its Alloys	Nickel	7440-02-0	0.194045	95.120098	951201	0.780002	7800
Precious Metals	Gold	7440-57-5	0.001591	0.779902	7799	0.006395	64
Precious Metals	Palladium	7440-05-3	0.008364	4.1	41000	0.033621	336
Sub-Total			0.204	100	1000000	0.820018	8200
Mold Compound							
Other Inorganic Materials	Fused Silica	60676-86-0	11.307978	84.999997	850000	45.454647	454546
Other Plastics and Rubber	Carbon Black	1333-86-4	0.039911	0.300004	3000	0.16043	1604
Thermoplastics	Epoxy	85954-11-6	1.955615	14.699999	147000	7.86098	78610
Sub-Total			13.303504	100	1000000	53.476057	534761
Semiconductor Device							
Ceramics / Glass	Doped Silicon	7440-21-3	0.845146	100	1000000	3.397231	33972
Sub-Total			0.845146	100	1000000	3.397231	33972
Total			24.877496			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 IIG-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 J57098 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.