

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: 05/30/2022

Details for "INA190ASIDDFR"

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)*
INA190ASIDDFR	NIPDAU	Level-1-260C-UNLIM	TI PHILIPPINES A/T	DFP   8	2.9x1.6x0.85	23.5

\*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

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	0.010374	97.591722	975917	0.04235	442
Not Categorized	Proprietary Materials		0.000001	0.009407	94	0.000004	0
Precious Metals	Palladium	7440-05-3	0.000255	2.398871	23989	0.001087	11
Sub-Total			0.01063	100	1000000	0.045327	453
<b>Die Attach Adhesive</b>							
Other Inorganic Materials	Fused Silica	60676-86-0	0.033453	45	450000	0.142645	1426
Other Plastics and Rubber	Imidazole Derivative	288-32-4	0.000743	0.999462	9995	0.003168	32
Thermoplastics	Epoxy	85954-11-6	0.040144	54.000538	540005	0.171176	1712
Sub-Total			0.07434	100	1000000	0.316989	3170
<b>Lead Frame</b>							
Copper and Its Alloys	Copper	7440-50-8	16.1103	97.05	970500	68.694965	686950
Copper and Its Alloys	Iron	7439-89-6	0.4316	2.6	26000	1.84036	18404
Copper and Its Alloys	Phosphorus	7723-14-0	0.0249	0.15	1500	0.106175	1062
Zinc and Its Alloys	Zinc	7440-66-6	0.0332	0.2	2000	0.141566	1416
Sub-Total			16.6	100	1000000	70.783066	707831
<b>Lead Frame Plating</b>							
Nickel and Its Alloys	Nickel	7440-02-0	0.09512	95.12	951200	0.405595	4056
Precious Metals	Gold	7440-57-5	0.00078	0.78	7800	0.003326	33
Precious Metals	Palladium	7440-05-3	0.0041	4.1	41000	0.017483	175
Sub-Total			0.1	100	1000000	0.426404	4264
<b>Mold Compound</b>							
Other Inorganic Materials	Fused Silica	60676-86-0	5.602257	87.999988	880000	23.888249	238882
Other Organic Materials	Chlorine	7782-50-5	0.000064	0.001005	10	0.000273	3
Other Plastics and Rubber	Carbon Black	1333-86-4	0.019099	0.300006	3000	0.081439	814
Thermoplastics	Epoxy	85954-11-6	0.744782	11.699	116990	3.17578	31758
Sub-Total			6.366202	100	1000000	27.145741	271457
<b>Semiconductor Device</b>							
Ceramics / Glass	Doped Silicon	7440-21-3	0.300765	100	1000000	1.282474	12825
Sub-Total			0.300765	100	1000000	1.282474	12825
<b>Total</b>			23.451937			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."

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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)  
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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 J5709B 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.