

ON Semiconductor				9/9/2019
Base Part		NCP163	HF	Pb-free
Orderable Part		NCP163BFCT180T2G	Total weight (mg)	0.313731
Homogenous Material	Weight (mg)	Substance in Mat.	CAS #	% Avg. Weight
Die	0.24779	Silicon (Si)	7440-21-3	99.43181818
		Aluminum (Al)	7429-90-5	0.56818182
Electrode	0.0438	Tin (Sn)	7440-31-5	24.7
		Copper (Cu)	7440-50-8	75.3
Protection coat	0.00637	Polyimide	n/a	100
Under Bump Metal	0.015771	Titanium (Ti)	7440-32-6	1.77
		Copper (Cu)	7440-50-8	98.23

**Materials Disclosure Disclaimer:** Even though all possible efforts have been made to provide you with the most accurate information, we cannot guarantee to its accuracy since the data has been compiled based on the ranges provided, and some information provided by the subcontractors and raw material suppliers may have been withheld to protect their business proprietary information. Thus this information is provided only as estimates, and do not include trace levels fo dopants and metal materials contained within silicon devices in the finished products. There is no intentional use of Mercury, Hexavalent Chromium, Cadmium, PBB or PBDE (5 of the 6 RoHS banned substances) in this or any of our other products. For further explanation on material composition calculations, please view our Product Chemical Content Brochure at: <http://www.onsemi.com/pub/Collateral/BRD8022-D.PDF>