

ON Semiconductor				9/9/2019
Base Part		NCP163	HF	Pb-free
Orderable Part		NCP163AMX150TBG	Total weight (mg)	1.434
Homogenous Material	Weight (mg)	Substance in Mat.	CAS #	% Avg. Weight
Die	0.09	Silicon (Si)	7440-21-3	100
Die Attach Tape	0.13	Epoxy resins	n/a	20
		Acrylic Copolymer	n/a	15
		Filler (SiO2)	68909-20-6	50
		Phenolic resins	n/a	15
Lead Frame	0.58	Tin (Sn)	7440-31-5	0.25
		Zinc (Zn)	7440-66-6	0.22
		Chromium (Cr)	7440-47-3	0.25
		Copper (Cu)	7440-50-8	99.28
Mold Compound-Black	0.6	Epoxy resins	n/a	6
		Carbon Black (C)	1333-86-4	0.5
		Aluminum Hydroxide (Al(OH)3)	21645-51-2	1.5
		Fused Silica (SiO2)	60676-86-0	86
		Phenolic Resin (Novolac)	9003-35-4	6
Plating	0.004	Palladium (Pd)	7440-05-3	2.4
		Nickel (Ni)	7440-02-0	88
		Gold (Au)	7440-57-5	9.6
		Gold (Au)	7440-57-5	100
Wire Bond - Au	0.03	Gold (Au)	7440-57-5	100

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>