

ON Semiconductor			10/16/2019	
Base Part		ECH8654	HF	
Orderable Part		ECH8654-TL-H	Total weight (mg)	19.18
Homogenous Material	Weight (mg)	Substance in Mat.	CAS #	% Avg. Weight
Die	1.32	Silicon (Si)	7440-21-3	100
Die Attach Solder	1.18	Silver (Ag)	7440-22-4	2.5
		Lead (Pb)	7439-92-1	92.5
		Tin (Sn)	7440-31-5	5
Lead Frame	8.66	Silver (Ag)	7440-22-4	1.21
		Tin (Sn)	7440-31-5	0.14
		Copper (Cu)	7440-50-8	98.65
Mold Compound-Black	7.87	Epoxy + Phenol Resin	n/a	3.8
		Carbon Black (C)	1333-86-4	1
		Aluminum Hydroxide (Al(OH)3)	21645-51-2	10
		Fused Silica (SiO2)	60676-86-0	70
		Ortho Cresol Novolac Resin	29690-82-2	15
Plating	0.14	Silica Crystalline (SiO2)	14808-60-7	0.2
		Bismuth (Bi)	7440-69-9	0.6
Wire Bond - Au	0.01	Tin (Sn)	7440-31-5	99.4
		Gold (Au)	7440-57-5	100
<p>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</p>				