



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D * : Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-03-27
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Giovanni Giacopello	Representative Title	ADG MD CHAMPION
Representative Phone *	Refer to Supplier Comment section	Representative Email *	Refer to Supplier Comment section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html		

Uncertainty Statement


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Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	Standard

Legal Statement

Supplier certifies that it gathered the provided information and such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products. Company acknowledges that Supplier may have relied on information provided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its suppliers have provided certifications regarding their contributions to the part(s), and those certifications are at least as omprehensive as the certification in this paragraph. If the Company and the Supplier enter into a written agreement with respect to the identified part(s), the terms and conditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, will be the sole and exclusive source of the Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form.

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
1.5KE33A	8HWA*TWU033K	A	ZA41	2018-03-27
Amount	UoM	Unit type	ST ECOPACK Grade	
877.00	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
Not Applicable	Not Applicable	Not Applicable		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SMC	9.15X15.7X5	na	J bend	
Comment	Package: DO201			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements except lead in solder and this usage may qualify under the lead in solder '7b' exemption (other selected exemptions may apply)	FALSE
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
5 - Product(s) is obsolete, no information is available	FALSE
6 - Product(s) is unknown, no information is available	FALSE
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : California Prop65 list, dated 15th December 2017			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.03	die backside metal	35
Lead	2.11	soft solder	2403

QueryList : REACH-15th January 2018				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration						Mfr Item Name	8HWA*TWU033K						
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)	
Die	Other inorganic materials	5.538	mg	supplier	die	Silicon (Si)	7440-21-3		4.909	mg	886421	5597	
				supplier	metallization	Aluminium (Al)	7429-90-5		0.527	mg	95161	601	
				supplier	Passivation	Silicon Oxide	7631-86-9		0.045	mg	8126	51	
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.019	mg	3431	22	
				supplier	back side metallization	Gold (Au)	7440-57-5		0.007	mg	1263	8	
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.031	mg	5598	35	
Leadframe	Copper & its alloys	708.670	mg	supplier	alloy	Copper (Cu)	7440-50-8		708.320	mg	999506	807662	
				supplier	alloy	Zinc (Zn)	7440-66-6		0.030	mg	43	34	
				supplier	alloy	Iron (Fe)	7439-89-6		0.079	mg	111	90	
				supplier	alloy	Phosphorus (P)	12185-10-3		0.241	mg	340	275	
				supplier	soft solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	2.107	mg	924934	2403	
Die attach	Other Organic Materials	2.278	mg	supplier	soft solder	Tin (Sn)	7440-31-5		0.114	mg	50044	130	
				supplier	soft solder	Silver (Ag)	7440-22-4		0.057	mg	25022	65	
				supplier	mold compound	Silica fused(SiO2)	7631-86-9		59.409	mg	399999	67741	
Encapsulation	Other inorganic materials	148.523	mg	supplier	mold compound	silica quartz	14808-60-7		85.401	mg	575002	97379	
				supplier	mold compound	phenolic resin	9003-35-4		2.970	mg	19997	3387	
				supplier	mold compound	carbon black	1333-86-4		0.743	mg	5002	847	
				supplier	connection coating	Tin (Sn)	7440-31-5		11.991	mg	1000000	13673	
Finishing	Solder	11.991	mg	supplier	connection coating	Tin (Sn)	7440-31-5		11.991	mg	1000000	13673	