



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2017-09-13
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Giuseppe Vitali Palma	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 comprehensive 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
STW40N90K5	TSLW*VK99B52	A	3068	2017-09-13
Amount	UoM	Unit type	ST ECOPACK Grade	
4430.00	mg	Each	ECOPACK2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
NA	NA	NA		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	15.75-20.15-5.15	3	Through-hole	
Comment	TO 247			

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
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

Query : California Prop65 list, dated 27th January 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	1.23	Die back side metal - Leadframe metal	278
Lead	39.76	Soft solder	8975

QueryList : REACH-12th January 2017				
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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	TSLW*VK99852									
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	48.689	mg	supplier	die	Silicon (Si)	7440-21-3		46.365	mg	952268	10466				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.864	mg	17747	195				
				supplier	metallization	Copper (Cu)	7440-50-8		0.318	mg	6531	72				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.199	mg	4087	45				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.493	mg	10125	111				
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.022	mg	452	5				
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.316	mg	6490	71				
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.112	mg	2300	25				
				Leadframe	Copper & its alloys	2826.184	mg	supplier	alloy	Copper (Cu)	7440-50-8		2821.522	mg	998350	636912
								supplier	alloy	Iron (Fe)	7439-89-6		1.300	mg	460	293
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						2.373	mg	840	536				
supplier	metallization	Nickel (Ni)	7440-02-0						0.915	mg	324	207				
supplier	metallization	Phosphorus (P)	12185-10-3						0.074	mg	26	17				
Soft solder	Solder	41.632	mg					JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high met	39.758	mg	954987	8975
				supplier	solder	Silver (Ag)	7440-22-4		1.041	mg	25004	235				
				supplier	solder	Tin (Sn)	7440-31-5		0.833	mg	20009	188				
				supplier	wire	Aluminium (Al)	7429-90-5		1.160	mg	997420	262				
Bonding wires	Other inorganic materials	1.163	mg	supplier	wire	Magnesium (Mg)	7439-95-4		0.003	mg	2580	1				
				supplier	mold compound	Silica, vitreous	60676-86-0		1307.641	mg	870000	295179				
Encapsulation	Other Organic Materials	1503.036	mg	supplier	mold compound	Epoxy resin	25068-38-6		150.304	mg	100000	33929				
				supplier	mold compound	Phenol resin	29690-82-2		37.576	mg	25000	8482				
				supplier	mold compound	Carbon Black	1333-86-4		7.515	mg	5000	1696				
Connections coating	Solder	9.296	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		9.296	mg	1000000	2098				