



Materials Declaration Form

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

*: Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-08-09
Contact Name *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Authorized Representative *	Refer to Supplier Comment section
Authorized Representative *	Rossana Bonaccorso	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		


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Legal Statement

Supplier Acceptance *	true	Legal Declaration *	Standard
Legal Statement	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STWA72N60DM2AG	TSWT*FQ69A6F	A	Z8GA	2018-08-09
	Amount	UoM	Unit type	ST ECOPACK Grade
	6100.00	mg	Each	ECOPACK® 2
Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)			

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	
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	15.75X20.15X5.15	3	Through-hole	
Comment	Package: TO-247 LONG LEADS			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	TRUE
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)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description

QueryList : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
Exemption Id.	Description

QueryList : California Prop65 list, dated 25th May 2018			
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	1.42	Die - Leadframe	233

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
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	TSWT*FQ69A6F					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	47.521	mg	supplier	die	Silicon (Si)	7440-21-3		45.603	mg	959639	7476
				supplier	metallization	Aluminium (Al)	7429-90-5		0.922	mg	19402	151
				supplier	Passivation	Silicon Nitride	12033-89-5		0.219	mg	4608	36
				supplier	Passivation	Silicon Oxide	7631-86-9		0.326	mg	6860	53
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.022	mg	463	4
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.317	mg	6671	52
Leadframe	Copper & its alloys	3970.074	mg	supplier	back side metallization	Silver (Ag)	7440-22-4		0.112	mg	2357	18
				supplier	alloy	Copper(CU)	7440-50-8		3964.912	mg	998700	649986
				supplier	alloy	Iron (Fe)	7439-89-6		3.970	mg	1000	651
Solder paste	Solder	3.727	mg	supplier	alloy	Phosphorus(P)	12185-10-3		0.089	mg	22	15
				supplier	metallization	Nickel (Ni)	7440-02-0		1.103	mg	278	181
				supplier	solder	Tin(Sn)	7440-31-5		2.422	mg	649852	396
				supplier	solder	Silver(Ag)	7440-22-4		0.931	mg	249799	153
				supplier	solder	Antimony	7440-36-0		0.374	mg	100349	61
Bonding wires	Other organic materials	4.858	mg	supplier	wire	Aluminium (Al)	7429-90-5		4.858	mg	1000000	796
Encapsulation	Other organic materials	2035.829	mg	supplier	mold compound	Epoxy resin	29690-82-2		142.508	mg	70000	23362
				supplier	mold compound	Phenol resin	9003-35-4		50.896	mg	25000	8344
				supplier	mold compound	Silica	60676-86-0		1526.873	mg	750001	250307
				supplier	mold compound	Metal hydroxide	21645-51-2		305.373	mg	149999	50061
				supplier	mold compound	Carbon black	1333-86-4		10.179	mg	5000	1669
Finishing	Solder	37.991	mg	supplier	solder alloy	Tin(Sn)	7440-31-5		37.991	mg	1000000	6228