



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 *	2021-06-21
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	giovanni giacopello	Representative Title	ADG Material Declaration 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
SCTWA40N12G24AG	TSTM*SQK9AVF	A	998G	2021-06-21
	Amount	UoM	Unit type	ST ECOPACK Grade
	6080	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	,		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM00636037	

Package Designator	Package Size	Nbr of instances	Shape	
SIP	15.80,21.00,5.00	4	through-hole	
Comment	TO247-4			

QueryList : RoHS Directive 2011/65/EU- 8 June 2011 – Annex II amended by Delegated Directive 2015/863 - 31 March 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)

QueryList : ELV directive : 2000/53/EC amended 2020/363_March 2020	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	false
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	true
Exemption Id.	Description
8e	8e - Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

QueryList : California Prop65 list, dated 19th March 2021			
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	24.00	die - leadframe	3947
Lead	2.98	soft solder	490

QueryList : REACH-19th January 2021				
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				false
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead		2.98	Soft solder	955128

QueryList : Responsible metals sourcing	
Query	Response
The component is containing at least one of the following metals : Cobalt , Gold , Tantalum , Tin , Tungsten.	true
The following metals are present is the component :	Gold, Tin,
This product is in the scope of the responsible metals sourcing, its compliance is covered by our company processes .	

Material Composition Declaration :						Mfr Item Name	TSTM*SQK9AVF					
note : Substance present with less 0.001mg will not be declared in this document												
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	5.250	mg	supplier	die	Silicium carbide	409-21-2		4.960	mg	944762	815
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.087	mg	16571	14
				supplier	metallisation	Copper(Cu)	7440-50-8		0.012	mg	2286	2
				supplier	metallisation	Gold(Au)	7440-57-5		0.008	mg	1524	1
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.083	mg	15810	14
				supplier	metallisation	Silver(Ag)	7440-22-4		0.066	mg	12571	11
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.013	mg	2476	2
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.014	mg	2667	2
				supplier	passivation	Silicon oxide	7631-86-9		0.007	mg	1333	1
				Leadframe	M-004 Copper and its alloys	4782.465	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron(Fe)	7439-89-6						4.782	mg	1000	787
supplier	metallization	Nickel (Ni)	7440-02-0						23.913	mg	5000	3933
supplier	metallization	Phosphorus (P)	7723-14-0						1.435	mg	300	236
Soft solder	Solder	3.120	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	2.980	mg	955128	490
				supplier	solder	Tin(Sn)	7440-31-5		0.062	mg	19872	10
				supplier	solder	Silver(Ag)	7440-22-4		0.078	mg	25000	13
Bonding wires	M-003 Aluminum and its alloys	0.376	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.376	mg	1000000	62
Bonding wires 2	M-003 Aluminum and its alloys	0.751	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.751	mg	1000000	124
Adhesion promoter	M-015 Other organic materials	0.442	mg	supplier	resin	Aminopropyltriethoxysilane	919-30-2		0.398	mg	900452	65
				supplier	resin	other	proprietary		0.044	mg	99548	7
Encapsulation	M-011 Other inorganic materials	1245.014	mg	supplier	mold compound	Silica vitreous	60676-86-0		974.846	mg	783000	160337
				supplier	mold compound	Epoxy Cresol Novolac	29690-82-2		186.752	mg	150000	30716
				supplier	mold compound	Phenol resin	9003-35-4		62.251	mg	50000	10239
				supplier	mold compound	Triphenylphosphine	603-35-0		9.960	mg	8000	1638
				supplier	mold compound	Bismuth compound	7440-69-9		4.980	mg	4000	819
				supplier	mold compound	Carbon black	1333-86-4		6.225	mg	5000	1024
Connections coating	Solder	42.582	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		42.582	mg	1000000	7004