



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 *	2018-12-03
Company Unique ID	NL 008751171801		
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 *	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		

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
L9663-TR-1	C0VC*UAJ3BAP	A	ZY1A	2018-12-03
	Amount	UoM	Unit type	ST ECOPACK Grade
	70.00	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
3	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	5x5x0.85	29	Flat	
Comment	QFN 5X5 0.5 PITCH DIMPLE			

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	0.07	Die	957
Cobalt	0.001	Die	14

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	COVC*UAI3BAP					
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	5.523	mg	supplier	die	Silicon (Si)	7440-21-3		4.788	mg	866952	68400
				supplier	metallization	Aluminium (Al)	7429-90-5		0.015	mg	2716	214
				supplier	metallization	Copper (Cu)	7440-50-8		0.397	mg	71884	5671
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	181	14
				supplier	passivation	Nickel (Ni)	7440-02-0		0.049	mg	8872	700
				supplier	metallization	Platinum (Pt)	7440-06-4		0.028	mg	5070	400
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	542	43
				supplier	metallization	Tungsten (W)	7440-33-7		0.023	mg	4165	329
				supplier	Passivation	Silicon Nitride	12033-89-5		0.013	mg	2354	186
				supplier	Passivation	Silicon Oxide	7631-86-9		0.099	mg	17926	1414
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.004	mg	724	57
				supplier	back side metallization	Gold (Au)	7440-57-5		0.010	mg	1811	143
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.018	mg	3259	257
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.001	mg	181	14
				supplier	polymer die coating	Polyimide AH 1200	Proprietary		0.074	mg	13363	1054
Leadframe	Copper and its alloy	36.901	mg	supplier	alloy	Copper (Cu)	7440-50-8		35.689	mg	967155	509843
				supplier	alloy	Iron (Fe)	7439-89-6		0.860	mg	23306	12286
				supplier	alloy	Zinc (Zn)	7440-66-6		0.044	mg	1192	629
				supplier	alloy	Metallic Phosphorus (P)	7723-14-0		0.011	mg	298	157
				supplier	metallization	Silver(Ag)	7440-22-4		0.297	mg	8049	4248
Die attach	Other organic materials	1.364	mg	supplier	glue	Silver	7440-22-4		1.160	mg	850440	16571
				supplier	glue	Bisphenol F type liquid epoxy resin	9003-36-5		0.082	mg	60117	1171
				supplier	glue	Epoxy resin	25068-38-6		0.076	mg	55718	1086
				supplier	glue	P-Tertbutylphenyl glycidyl ether	3101-60-8		0.041	mg	30059	586
				supplier	glue	dicyandiamide	461-58-5		0.005	mg	3666	71
Bonding wires	Other inorganic materials	0.514	mg	supplier	wire	Copper (Cu)	7440-50-8		0.501	mg	974708	7157
				supplier	wire	Palladium (Pd)	7440-05-3		0.013	mg	25292	186
Encapsulation	Other organic materials	25.382	mg	supplier	mold compound	Epoxy Resin A	Proprietary		0.761	mg	29982	10871
				supplier	mold compound	Epoxy Resin B	85954-11-6		1.015	mg	39989	14500
				supplier	mold compound	Phenol Resin	29690-82-2		1.396	mg	55000	19943
				supplier	mold compound	Silica Amorphous A	60676-86-0		19.038	mg	750059	271971
				supplier	mold compound	Silica Amorphous B	7631-86-9		2.284	mg	89985	32629
				supplier	mold compound	Aluminium and its compounds	21645-51-2		0.761	mg	29982	10871
Connection coating	Other inorganic materials	0.316	mg	supplier	mold compound	Carbon Black	1333-86-4		0.127	mg	5003	1814
				supplier	solder alloy	Tin (Sn)	7440-31-5		0.316	mg	1000000	4514