



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 *	2019-01-03
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 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
VND5E025BK-E	STV5*VNY2ABC	A	0959	2019-01-03
Amount	UoM	Unit type	ST ECOPACK Grade	
470.00	mg	Each	ECOPACK2	
	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	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	10.3-7.5-2.28	24	Gull Wing	
Comment	PowerSSO24			

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	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 2017/2096 _November 2017	
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	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

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	0.06	Die	126
Lead	7.89	Soft solder	16777

QueryList : REACH-27th June 2018				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	7.885	Soft solder	16777
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	1000 ppm	7.885	Soft solder	975022

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	STVS*VNYZABC					
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	7.329	mg	supplier	die	Silicon (Si)	7440-21-3		6.754	mg	921545	14370
				supplier	metallization	Aluminium (Al)	7429-90-5		0.053	mg	7230	113
				supplier	metallization	Copper (Cu)	7440-50-8		0.071	mg	9688	151
				supplier	metallization	Titanium (Ti)	7440-32-6		0.224	mg	30564	477
				supplier	Passivation	Silicon Nitride	12033-89-5		0.041	mg	5594	87
				supplier	Passivation	Silicon Oxide	7631-86-9		0.110	mg	15009	234
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	546	9
				supplier	back side metallization	Gold (Au)	7440-57-5		0.013	mg	1774	28
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.059	mg	8050	126
				supplier	alloy	Copper (Cu)	7440-50-8		162.290	mg	986326	345298
Leadframe	M-004 Copper and its alloys	164.540	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.163	mg	990	347
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.049	mg	298	104
				supplier	metallization	Silver (Ag)	7440-22-4		2.038	mg	12386	4336
				supplier	metallization	Lead (Pb)	7439-92-1	7a-Lead in high mel	7.885	mg	975022	16777
Soft solder	Solder	8.087	mg	JIG - R	solder	Silver (Ag)	7440-22-4		0.121	mg	14962	257
				supplier	solder	Tin (Sn)	7440-31-5		0.081	mg	10016	172
				supplier	wire	Gold (Au)	7440-57-5		1.119	mg	813227	2381
Bonding wires	M-008 Precious metals	1.376	mg	supplier	wire	Copper (Cu)	7440-50-8		0.257	mg	186773	547
				supplier	mold compound	silica vitreous	60676-86-0		250.064	mg	878000	532051
Encapsulation	M-011 Other inorganic materials	284.811	mg	supplier	mold compound	Biphenyl epoxy resin	85954-11-6		17.089	mg	60001	36360
				supplier	mold compound	Phenol Resin	205830-20-2		11.392	mg	39998	24238
				supplier	mold compound	epoxy resin	25068-38-6		5.696	mg	19999	12119
				supplier	mold compound	carbon black	1333-86-4		0.570	mg	2002	1212
connections coating	Solder	3.857	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		3.857	mg	1000000	8206