



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 *	2020-06-05
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
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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
VND5E006ASPTR-E	AMFG*VH10AAF	A	959	2020-06-05
	Amount	UoM	Unit type	ST ECOPACK Grade
	1131	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		
3	225	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	CD00406407	



Package Designator	Size	Nbr of instances	Shape	
Not Applicable	8.62,6.58,3.50	16	shape	
Comment	PowerSO 16. MDF valid for CPs: VND5E006ASP-E,VND5E006ASPTR-E			

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 3rd January 2020			
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	0.89	die - leadframe	784
Lead	12.00	soft solder	10617

QueryList : REACH-16th January 2020				
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	12.00	Soft solder	10617
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	12.002	Soft solder	974980

Material Composition Declaration :						Mfr Item Name	AMFG*VH10AAF					
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)
Dies	M-011 Other inorganic materials	24.885	mg	supplier	die	Silicon(Si)	7440-21-3		23.130	mg	929476	20460
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.142	mg	5706	126
				supplier	metallisation	Copper(Cu)	7440-50-8		0.191	mg	7675	169
				supplier	metallisation	Gold(Au)	7440-57-5		0.029	mg	1165	26
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.134	mg	5385	119
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.613	mg	24633	542
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.109	mg	4380	96
				supplier	passivation	Silicon oxide	7631-86-9		0.296	mg	11895	262
				supplier	polymer coating	Polyimide	Proprietary		0.241	mg	9685	213
				Leadframe	M-004 Copper and its alloys	779.214	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8	
supplier	alloy & coating	Nickel(Ni)	7440-02-0						0.752	mg	965	665
supplier	alloy & coating	Iron(Fe)	7439-89-6						0.358	mg	459	317
supplier	alloy & coating	Iron Phosphide(FeP)	26508-33-8						0.654	mg	839	579
supplier	alloy & coating	Phosphorus metal	7723-14-0						0.006	mg	8	5
Soft solder	Solder	12.310	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	12.002	mg	974980	10617
				supplier	solder	Silver(Ag)	7440-22-4		0.185	mg	15028	164
				supplier	solder	Tin(Sn)	7440-31-5		0.123	mg	9992	109
Bonding wires	M-003 Aluminum and its alloys	2.128	mg	supplier	wire	Aluminium (Al)	7429-90-5		2.128	mg	1000000	1882
Bonding wires 2	M-008 Precious metals	0.325	mg	supplier	wire	Gold(Au)	7440-57-5		0.325	mg	1000000	287
Encapsulation	M-011 Other inorganic materials	310.884	mg	supplier	mold compound	Silica vitreous	60676-86-0		268.604	mg	864001	237598
				supplier	mold compound	Epoxy type resin	proprietary		23.316	mg	74999	20625
				supplier	mold compound	Phenol type resin	proprietary		15.544	mg	49999	13750
				supplier	mold compound	Mercaptopropyl trimethoxysilane	4420-74-0		1.554	mg	4999	1375
				supplier	mold compound	Quartz	14808-60-7		0.933	mg	3001	825
				supplier	mold compound	Carbon black	1333-86-4		0.933	mg	3001	825
connections coating	Solder	0.754	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.754	mg	1000000	667