



## Materials Declaration Form

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

*\* : Required Field*

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2020-09-10</b>
<b>Company Unique ID</b>	<b>NL 008751171B01</b>		
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	<b>giovanni giacopello</b>	<b>Representative Title</b>	<b>ADG MD CHAMPION</b>
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**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
VN7004CHTR	ARGB*VH53BAX	A	3068	2020-09-10
	Amount	UoM	Unit type	ST ECOPACK Grade
	290	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	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM00255508	



Package Designator	Size	Nbr of instances	Shape	
SIP	6.50,6.10,2.30	6	Through-hole	
Comment	HPAK + 1 (OCTAPAK). MDF valid for CPs: VN7004CH,VN7004CHTR			

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	0.21	die - leadframe	728
Lead	1.24	soft solder	4279

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	1.24	Soft solder	4279
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	1.241	Soft solder	954615

Material Composition Declaration :						Mfr Item Name	ARGB*VH53BAX					
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	9.636	mg	supplier	die	Silicon(Si)	7440-21-3		9.298	mg	964923	32059
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.121	mg	12557	417
				supplier	metallisation	Copper(Cu)	7440-50-8		0.014	mg	1453	48
				supplier	metallisation	Gold(Au)	7440-57-5		0.011	mg	1142	38
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.042	mg	4359	145
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.009	mg	934	31
				supplier	metallisation	Tungsten(W)	7440-33-7		0.050	mg	5189	172
				supplier	metallisation	Vanadium(V)	7440-62-2		0.003	mg	311	10
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.005	mg	519	17
				supplier	passivation	Silicon oxide	7631-86-9		0.057	mg	5915	197
				supplier	polymer coating	Polyimide	Proprietary		0.026	mg	2698	90
Leadframe	M-004 Copper and its alloys	191.295	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		190.877	mg	997815	658197
				supplier	alloy & coating	Nickel(Ni)	7440-02-0		0.169	mg	883	583
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.088	mg	460	303
				supplier	alloy & coating	Iron Phosphide(FeP)	26508-33-8		0.161	mg	842	555
Die attach	M-011 Other inorganic materials	0.398	mg	supplier	tape	Epoxy resin	25068-38-6		0.250	mg	628140	862
				supplier	tape	Polypropylene	9003-07-0		0.008	mg	20101	28
				supplier	tape	epoxy resin	29690-82-2		0.040	mg	100503	138
				supplier	tape	Propenoate polymer	538311-13-6		0.080	mg	201005	276
				supplier	tape	Bisphenol A diglycidyl ether	1675-54-3		0.020	mg	50251	69
Soft solder	Solder	1.300	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	1.241	mg	954615	4279
				supplier	solder	Silver(Ag)	7440-22-4		0.033	mg	25385	114
				supplier	solder	Tin(Sn)	7440-31-5		0.026	mg	20000	90
Encapsulation	M-011 Other inorganic materials	84.858	mg	supplier	mold compound	Silica vitreous	60676-86-0		61.946	mg	729996	213607
				supplier	mold compound	Amorphous silica	7631-86-9		6.789	mg	80004	23410
				supplier	mold compound	Epoxy type resin	proprietary		7.213	mg	85001	24872
				supplier	mold compound	Phenol type resin	proprietary		5.940	mg	69999	20483
				supplier	mold compound	Aluminium compound	proprietary		2.546	mg	30003	8779
supplier	mold compound	Carbon black	1333-86-4		0.424	mg	4997	1462				
connections coating	Solder	2.514	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.514	mg	1000000	8669