



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 *	2020-05-21
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 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
VNB10N07TR-E	ASD2*VN39BBC	A	3068	2020-05-21
	Amount	UoM	Unit type	ST ECOPACK Grade
	1380	mg	Each	ECOPACK 1
Comment	ECOPACK® or ECOPACK® 1 is STMicroelectronics trade name for ROHS compliant devices			

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
3	245	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM00161113	

Package Designator	Size	Nbr of instances	Shape	
SIP	10.20,9.15,4.50	3	gull wing	
Comment	D2PAK. MDF valid for CPs: VNB10N07-E,VNB10N07TR-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	0.15	die - leadframe	107
Lead	3.56	soft solder	2578
Antimony trioxide	7.01	encapsulation	5080

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	3.56	Soft solder	2578
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	3.557	Soft solder	954899

Material Composition Declaration :						Mfr Item Name	ASD2*VN39BBC					
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	9.124	mg	supplier	die	Silicon(Si)	7440-21-3		8.957	mg	981697	6491
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.044	mg	4822	32
				supplier	metallisation	Gold(Au)	7440-57-5		0.009	mg	986	7
				supplier	metallisation	Nicke(Ni)	7440-02-0		0.043	mg	4713	31
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.003	mg	329	2
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.027	mg	2959	20
Leadframe	M-004 Copper and its alloys	778.660	mg	supplier	passivation	Silicon oxide	7631-86-9		0.041	mg	4494	30
				supplier	alloy & coating	Copper(Cu)	7440-50-8		777.532	mg	998551	563427
				supplier	alloy & coating	Nicke(Ni)	7440-02-0		0.105	mg	135	76
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.358	mg	460	259
				supplier	alloy & coating	Iron Phosphide(FeP)	26508-33-8		0.654	mg	840	474
				supplier	alloy & coating	Phosphorus metal	7723-14-0		0.011	mg	14	8
Soft solder	Solder	3.725	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	3.557	mg	954899	2578
				supplier	solder	Silver(Ag)	7440-22-4		0.093	mg	24966	67
				supplier	solder	Tin(Sn)	7440-31-5		0.075	mg	20135	54
Bonding wires	M-003 Aluminum and its alloys	1.549	mg	supplier	wire	Aluminium (Al)	7429-90-5		1.549	mg	1000000	1122
Bonding wires 2	M-003 Aluminum and its alloys	0.263	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.263	mg	1000000	191
Encapsulation	M-011 Other inorganic materials	584.190	mg	supplier	mold compound	Silica vitreous	60676-86-0		480.788	mg	822999	348397
				supplier	mold compound	Epoxy Cresol Novolac	29690-82-2		40.893	mg	69999	29633
				supplier	mold compound	Phenol resin	9003-35-4		23.368	mg	40001	16933
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		17.526	mg	30001	12700
				supplier	mold compound	Antimony trioxide	1309-64-4		7.010	mg	12000	5080
				supplier	mold compound	Brominated epoxy resin	40039-93-8		11.684	mg	20000	8467
connections coating	Solder	2.489	mg	supplier	mold compound	Carbon black	1333-86-4		2.921	mg	5000	2117
connections coating	Solder	2.489	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.489	mg	1000000	1804