



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 *	2019-04-03
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
	ASD2*VN29BBC	A	3068	2019-04-03
Amount	UoM	Unit type	ST ECOPACK Grade	
1380.00	mg	Each	ECOPACK1	
	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	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2-9.15-4.5	2	gull wing	
Comment	Package: D2PAK - MDF valid for CPs: VNB20N07TR-E and VNB20N07-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	TRUE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
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 23rd November 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	0.14	Die - Leadframe	104
Lead	9.05	Soft solder	6554
Antimony trioxide	6.86	Mold compound	4971

QueryList : REACH-15th January 2019				
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	9.05	Soft solder	6554
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	9.05	Soft solder	955021

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	ASD2*VN29BBC					
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	14.219	mg	supplier	die	Silicon (Si)	7440-21-3		13.958	mg	981644	10114
				supplier	metallization	Aluminium (Al)	7429-90-5		0.069	mg	4853	50
				supplier	Passivation	Silicon Nitride	12033-89-5		0.042	mg	2954	30
				supplier	Passivation	Silicon Oxide	7631-86-9		0.064	mg	4500	47
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.005	mg	352	4
				supplier	back side metallization	Gold (Au)	7440-57-5		0.014	mg	985	10
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.067	mg	4712	49
Leadframe	M-004 Copper and its alloys	778.633	mg	supplier	alloy	Copper (Cu)	7440-50-8		777.537	mg	998592	563433
				supplier	alloy	Iron (Fe)	7439-89-6		0.779	mg	1000	564
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.234	mg	301	170
				supplier	metallization	Nickel (Ni)	7440-02-0		0.077	mg	99	56
				supplier	metallization	Phosphorus (P)	7723-14-0		0.006	mg	8	4
				supplier	alloy	Lead (Pb)	7439-92-1	7a-Lead in high mel	9.045	mg	955021	6554
Soft solder	Solder	9.471	mg	JIG - R	solder	Lead (Pb)	7439-92-1		9.045	mg	955021	6554
				supplier	solder	Silver (Ag)	7440-22-4		0.237	mg	25024	172
				supplier	solder	Tin (Sn)	7440-31-5		0.189	mg	19955	137
Bonding wires	M-011 Other inorganic materials	3.215	mg	supplier	wire	Aluminium (Al)	7429-90-5		3.215	mg	1000000	2330
Encapsulation	M-011 Other inorganic materials	571.973	mg	supplier	mold compound	Silica, vitreous	60676-86-0		461.010	mg	806000	334065
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		40.038	mg	70000	29013
				supplier	mold compound	Phenol resin	9003-35-4		22.879	mg	40000	16579
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		34.318	mg	59999	24868
				supplier	mold compound	Antimony Trioxide	1309-64-4		6.864	mg	12001	4974
				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		4.004	mg	7000	2901
				supplier	mold compound	Carbon black	1333-86-4		2.860	mg	5000	2072
Connections coating	Solder	2.489	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.489	mg	1000000	1804