



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 *	2018-10-08
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 *	Floriana SAN BIAGIO	Representative Title	AMS 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
	TR8C*VNB5D46	A	MU1A	2018-10-08
	Amount	UoM	Unit type	ST ECOPACK Grade
	1925	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		 life.augmented
3	250	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	15.9x11x3.5	36	gull wing	
Comment	8C PowerSO 36 .430 BODY WIDTH; MDF valid for VN808TR-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 : 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	13.36		6941

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	TR8C*VNBS046			6000001.0	1000000.0	
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	16.280	mg	supplier	die	Silicon (Si)	7440-21-3		15.823	mg	971929	8220
				supplier	metallization	Aluminium (Al)	7429-90-5		0.097	mg	5958	50
				supplier	Passivation	Silicon Nitride	12033-89-5		0.112	mg	6880	58
				supplier	Passivation	Silicon Oxide	7631-86-9		0.109	mg	6695	57
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.008	mg	491	4
				supplier	back side metallization	Gold (Au)	7440-57-5		0.023	mg	1413	12
Leadframe	M-004 Copper and its alloys	1234.219	mg	supplier	back side metallization	Nickel (Ni)	7440-02-0		0.108	mg	6634	56
				supplier	alloy	Copper (Cu)	7440-50-8		1232.312	mg	998455	640162
				supplier	alloy	Iron (Fe)	7439-89-6		0.568	mg	460	295
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		1.037	mg	840	539
				supplier	metallization	Silver (Ag)	7440-22-4		0.302	mg	245	157
Soft solder	Solder	13.704	mg	SVHC	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	13.361	mg	974971	6941
				supplier	solder	Silver (Ag)	7440-22-4		0.206	mg	15032	107
				supplier	solder	Tin (Sn)	7440-31-5		0.137	mg	9997	71
Bonding wires	M-008 Precious metals	3.304	mg	supplier	wire	Gold (Au)	7440-57-5		3.304	mg	1000000	1716
				supplier	mold compound	silica vitreous	60676-86-0		576.657	mg	885000	299562
Encapsulation	M-015 Other organic materials	651.590	mg	supplier	mold compound	Biphenyl epoxy resin	85954-11-6		34.534	mg	53000	17940
				supplier	mold compound	Phenol Resin	205830-20-2		26.064	mg	40001	13540
				supplier	mold compound	epoxy resin	Proprietary		13.032	mg	20000	6770
				supplier	mold compound	carbon black	1333-86-4		1.303	mg	2000	677
connections coating	Solder	5.903	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		5.903	mg	1000000	3066