



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 *	2017-11-29
Contact Name *	Refer to Supplier Comment section		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
VNH7070BASTR	UCQ7*VH73AAX	A	Z7GA	2017-11-29
Amount		UoM	Unit type	ST ECOPACK Grade
150.00		mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	3.9x9.9x1.375	16	flat	
Comment	Package: SO 16 .15 TO JEDEC MS-012			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	TRUE
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)	false
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	false
Exemption Id.	Description

Query : California Prop65 list, dated 27th January 2017			
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	0.53	Die / Leadframe	3540

QueryList : REACH-12th January 2017				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration						Mfr Item Name	UCQ7*VH73AAX					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	Other inorganic materials	6.640	mg	supplier	die	Silicon (Si)	7440-21-3		6.264	mg	943373	41760
				supplier	metallization	Aluminium (Al)	7429-90-5		0.119	mg	17922	793
				supplier	metallization	Titanium (Ti)	7440-32-6		0.009	mg	1355	60
				supplier	metallization	Tungsten (W)	7440-33-7		0.073	mg	10994	487
				supplier	Passivation	Silicon Oxide	7631-86-9		0.068	mg	10241	453
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	301	13
				supplier	back side metallization	Gold (Au)	7440-57-5		0.007	mg	1054	47
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.030	mg	4518	200
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.002	mg	301	13
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.066	mg	9941	440
Leadframe	Copper and its alloy	53.538	mg	Supplier	alloy	Iron (Fe)	7439-89-6		1.258	mg	23497	8387
				Supplier	alloy	Phosphorus	12185-10-3		0.044	mg	822	293
				Supplier	alloy	Zinc (Zn)	7440-66-6		0.067	mg	1251	447
				Supplier	alloy	Copper (Cu)	7440-50-8		51.624	mg	964250	344160
				Supplier	metallization	Silver (Ag)	7440-22-4		0.011	mg	205	73
				Supplier	metallization	Nickel (Ni)	7440-02-0		0.501	mg	9358	3340
				Supplier	metallization	Palladium (Pd)	7440-05-3		0.013	mg	243	87
				Supplier	metallization	Gold (Au)	7440-57-5		0.020	mg	374	134
Die Attach	Other organic materials	4.253	mg	Supplier	glue	Silver (Ag)	7440-22-4		4.040	mg	949918	26933
				Supplier	glue	High boiling methacrylate	Proprietary		0.213	mg	50082	1420
Bonding wire	Other inorganic materials	0.101	mg	Supplier	wire	Copper (Cu)	7440-50-8		0.101	mg	1000000	673
Encapsulation	Other organic materials	85.468	mg	Supplier	mold compound	Silica fused	60676-86-0		77.777	mg	910013	518513
				Supplier	mold compound	Epoxy resin	25068-38-6		4.273	mg	49995	28487
				Supplier	mold compound	Phenol resin A	29690-82-2		1.453	mg	17001	9687
				Supplier	mold compound	Phenol resin B	Proprietary		1.709	mg	19996	11393
				Supplier	mold compound	Carbon black	1333-86-4		0.256	mg	2995	1707