



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 *	2016-06-13
Contact Name *	Refer to "Supplier Comment" section	Contact Title	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/online_tech_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
	ARGB*VH53BAX	A	SH1A	2016-06-13
Amount	UoM	Unit type	ST ECOPACK Grade	
290.00	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	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	6.5x6.1x2.3	7	flat	
Comment	Package: HPAK + 1 (OCTAPAK) valid for CPs: VN7004CHTR and VN7004CH			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	false
Product(s) meets EU RoHS requirements except lead in solder and this usage may qualify under the lead in solder '7a' exemption (other selected exemptions may apply)	false
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	true
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	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-17th December 2015				
Query				Response
The product 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	ARGB*VH53BAX					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dice	Other inorganic materials	9.540	mg	supplier	die	Silicon (Si)	7440-21-3		8.958	mg	938994	30890
Dice				supplier	metallization	Aluminium (Al)	7429-90-5		0.040	mg	4193	138
Dice				supplier	metallization	Titanium (Ti)	7440-32-6		0.191	mg	20021	659
Dice				supplier	metallization	Tungsten (W)	7440-33-7		0.025	mg	2621	86
Dice				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.034	mg	3564	117
Dice				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.115	mg	12055	397
Dice				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	314	10
Dice				supplier	back side metallization	Gold (Au)	7440-57-5		0.010	mg	1048	34
Dice				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.049	mg	5136	169
Dice				supplier	glass coating	Glass: Silicon Dioxide (SiO2)	7631-86-9		0.115	mg	12055	397
Leadframe	Copper & its alloys	191.736	mg	supplier	alloy	Copper (Cu)	7440-50-8		191.318	mg	997820	659717
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.088	mg	459	303
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.161	mg	840	555
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.169	mg	881	583
Die attach	Other inorganic materials	0.398	mg	supplier	glue or tape	Acrylic resin	9003-01-4		0.126	mg	316583	434
Die attach				supplier	glue or tape	epoxy resin	25068-38-6		0.252	mg	633166	869
Die attach				supplier	glue or tape	Diphenol Propane Diglycidyl Ether	1675-54-3		0.020	mg	50251	69
Soft solder	Solder	2.047	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	1.894	mg	925256	6531
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.051	mg	24915	176
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.102	mg	49829	352
Bonding wire	Other inorganic materials	1.226	mg	supplier	wire	Copper (Cu)	7440-50-8		0.153	mg	124796	528
Bonding wire				supplier	wire	Aluminium (Al)	7429-90-5		1.073	mg	875204	3700
encapsulation	Other inorganic materials	80.990	mg	supplier	mold compound	Silica, vitreous	60676-86-0		51.187	mg	632016	176507
encapsulation				supplier	mold compound	Silica Amorphous	7631-86-9		5.609	mg	69255	19341
encapsulation				supplier	mold compound	Epoxy Resin	25068-38-6		5.961	mg	73602	20555
encapsulation				supplier	mold compound	Epoxy Resin A	Proprietary		5.961	mg	73602	20555
encapsulation				supplier	mold compound	Phenol Resin	29690-82-2		5.961	mg	73602	20555
encapsulation				supplier	mold compound	Aluminium and its compounds	Proprietary		5.961	mg	73602	20555
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		0.350	mg	4322	1207
connections coating	Solder	4.063	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.063	mg	1000000	14010