



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 *	2015-07-01
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 *	Emilio Castelli	Representative Title	APG 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
VNH5200ASTR-E	UCQ7*VH46AAY	A	997G	2015-07-01
	Amount	UoM	Unit type	ST ECOPACK Grade
	152.51	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	Nicke/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	9.9x3.9x1.5	16	flat	
Comment				

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
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

QueryList : REACH-16th June 2014				
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	UCQ7*VH46AAY					
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	5.742	mg	supplier	die	Silicon (Si)	7440-21-3		5.368	mg	934866	35198
Dice				supplier	metallization	Titanium (Ti)	7440-32-6		0.150	mg	26123	984
Dice				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.026	mg	4528	170
Dice				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.074	mg	12887	485
Dice				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	522	20
Dice				supplier	back side metallization	Gold (Au)	7440-57-5		0.008	mg	1393	52
Dice				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.039	mg	6792	256
Dice				supplier	glass coating	Glass: Silicon Dioxide (SiO2)	7631-86-9		0.074	mg	12887	485
Encapsulation-Sumitomo EME G605L	Other organic materials	85.984	mg	Supplier	Molding compound	Silica fused	60676-86-0		73.086	mg	850000	479225
Encapsulation-Sumitomo EME G605L				Supplier	Molding compound	Epoxy resin	Trade secret		7.309	mg	85000	47922
Encapsulation-Sumitomo EME G605L				Supplier	Molding compound	Phenol resin A	Trade secret		2.751	mg	32000	18041
Encapsulation-Sumitomo EME G605L				Supplier	Molding compound	Phenol resin B	Trade secret		2.751	mg	32000	18041
Encapsulation-Sumitomo EME G605L				Supplier	Molding compound	Carbon black	1333-86-4		0.086	mg	1000	564
Leadframe-Samsung C194 with UPG	Copper and its alloy	53.174	mg	Supplier	Alloy	Iron	7439-89-6		1.250	mg	23500	8194
Leadframe-Samsung C194 with UPG				Supplier	Alloy	Phosphorus	7723-14-0		0.044	mg	825	288
Leadframe-Samsung C194 with UPG				Supplier	Alloy	Zinc	7440-66-6		0.066	mg	1250	436
Leadframe-Samsung C194 with UPG				Supplier	Alloy	Copper	7440-50-8		51.273	mg	964246	336196
Leadframe-Samsung C194 with UPG				Supplier	Coating	Silver	7440-22-4		0.011	mg	205	71
Leadframe-Samsung C194 with UPG				Supplier	Coating	Nickel	7440-02-0		0.497	mg	9350	3260
Leadframe-Samsung C194 with UPG				Supplier	Coating	Palladium	7440-05-3		0.013	mg	249	87
Leadframe-Samsung C194 with UPG				Supplier	Coating	Gold	7440-57-5		0.020	mg	375	131
Die Attach-QMI529HT-2A1	Other organic materials	7.528	mg	Supplier	Epoxy	Silver	7440-22-4		7.152	mg	950000	46893
Die Attach-QMI529HT-2A1				Supplier	Epoxy	High boiling methacrylateProprietary	Trade Secret		0.376	mg	50000	2468
Bonding wire1-Heraeus Cu wire	Other inorganic materials	0.030	mg	Supplier	Wire	Copper	7440-50-8		0.030	mg	999960	200
Bonding wire1-Heraeus Cu wire				Supplier	Wire	Calcium	7440-70-2		0.000001	mg	20	0
Bonding wire1-Heraeus Cu wire				Supplier	Wire	Silver	7440-22-4		0.000001	mg	20	0
Bonding wire2-Heraeus Cu wire	Other inorganic materials	0.071	mg	Supplier	Wire	Copper	7440-50-8		0.071	mg	999960	466
Bonding wire2-Heraeus Cu wire				Supplier	Wire	Calcium	7440-70-2		0.000001	mg	20	0
Bonding wire2-Heraeus Cu wire				Supplier	Wire	Silver	7440-22-4		0.000001	mg	20	0