



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 *	2019-01-24
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Antonella Lanzafame	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 omprehensive 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
HCC4049UBKT	23J3*P49UHW2	A	RN1A	2019-01-24
Amount	UoM	Unit type	ST ECOPACK Grade	
500.00	mg	Each	Non ECOPACK®	
Comment	non ROHS compliant device			

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
Not Applicable	Not Applicable	Not Applicable		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Sn63 Tin/Lead (Sn63Pb37)	Not Applicable	Kovar		



Package Designator	Size	Nbr of instances	Shape	
SOF	6.91x9.95	16	flat	
Comment	Package: B0RQ FLAT16 ESA FP			

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
Exemption Id.	Description

Query : California Prop65 list, dated 14 August 2015			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			TRUE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			FALSE
Substance	amount in product (mg)	Application	ppm in product
Nickel	57.78	frame	115560

QueryList : REACH-27th Jun 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
4-Nonylphenol, branched and linear	1000 ppm	0.011	glue	22

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	23J3*P49UHW2					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	4.819	mg	supplier	die	Silicon (Si)	7440-21-3		4.775	mg	990869	9550
				supplier	metallization	Aluminium (Al)	7429-90-5		0.007	mg	1453	14
				supplier	Passivation	Silicon Oxide	7631-86-9		0.014	mg	2905	28
				supplier	polymer die coating	PIX1 Polyimide	108-65-6		0.023	mg	4773	46
				supplier	alloy	Iron (Fe)	7439-89-6		21.722	mg	629806	43444
				supplier	alloy	Phosphorus (P)	12185-10-3		0.013	mg	377	26
				supplier	alloy	Nickel (Ni)	7440-02-0		12.755	mg	369817	25510
Die attach	Other Organic Materials	0.572	mg	supplier	glue	Silver (Ag)	7440-22-4		0.475	mg	830420	950
				supplier	glue	4,4'-ethylenediphenyl dicyanate	47073-92-7		0.086	mg	150350	172
				SVHC	glue	4-Nonylphenol	84852-15-3		0.009	mg	15734	18
				supplier	glue	Quartz	14808-60-7		0.001	mg	1748	2
				supplier	glue	Cobalt acetylacetonate	21679-46-9		0.001	mg	1748	2
				supplier	wire	Aluminium (Al)	7429-90-5		0.059	mg	983333	118
				supplier	wire	Silicium (Si)	7440-21-3		0.001	mg	16667	2
Lid Preform	Other inorganic materials	0.173	mg	supplier	resin	Gold (Au)	7440-57-5		0.138	mg	797688	276
				supplier	resin	Tin (Sn)	7440-31-5		0.035	mg	202312	70
connections coating	Solder	4.384	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.762	mg	630018	5524
				JIG - R	solder alloy	Lead (Pb)	7439-92-1		1.622	mg	369982	3244
Base	Other inorganic materials	432.502	mg	supplier	cavity	Aluminum oxide	1344-28-1		276.213	mg	638640	552426
				supplier	cavity	Iron (Fe)	7439-89-6		54.983	mg	127128	109966
				supplier	cavity	Nickel (Ni)	7440-02-0		45.025	mg	104104	90050
				supplier	cavity	glass	60676-86-0		23.378	mg	54053	46756
				supplier	cavity	Gold (Au)	7440-57-5		11.256	mg	26025	22512
				supplier	cavity	Tungsten (W)	7440-33-7		10.823	mg	25024	21646
				supplier	cavity	Chromium oxide	1308-38-9		4.762	mg	11010	9524
				supplier	cavity	Silver (Ag)	7440-22-4		3.031	mg	7008	6062
Lid	Other inorganic materials	23.000	mg	supplier	cavity	Cobalt (Co)	7440-48-4		2.598	mg	6007	5196
				supplier	cavity	Molybdenum (Mo)	7439-98-7		0.433	mg	1001	866
				supplier	lid	Iron (Fe)	1344-28-1		12.075	mg	525000	24150
				supplier	lid	Nickel (Ni)	7439-89-6		7.360	mg	320000	14720
				supplier	lid	Cobalt (Co)	7440-02-0		3.335	mg	145000	6670
				supplier	lid	Gold (Au)	60676-86-0		0.230	mg	10000	460