

## **Materials Declaration Form**

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info	Subsectionals *	A-D
	Manufacturing Info		* : Required Field

Supplier Information								
Company Name *	STMicroelectronics	Response Date *	2019-02-08					
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					
	Rossana Bonaccorso Representative Title							
Authorized Representative *	Rossana Bonaccorso	Representative Title	ADG MD Champion					
Authorized Representative * Representative Phone *		•	ADG MD Champion Refer to Supplier Comment section					

## **Uncertainty Statement**

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ľ	Legal Statement			
9	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 writter 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						
STTH8R06FP	JSUV*W75G101	A	3068	2019-02-08						
	Amount	UoM	Unit type	ST ECOPACK Grade						
	1900.00	mg Each		ECOPACK2						
	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						
NA	NA	NA						
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	life.augmented				
NA	Tin (Sn), matte	Copper Alloy		111010				

Package Designator	Package Designator Size		Shape	
SIP	10-9.05-4.4	3	Through-hole	
Comment	TO 220 ISOL FULL PACK 0.5 AC-2L			

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 requiremen	1 - Product(s) meets EU RoHS requirement without any exemptions							
2 - Product(s) meets EU RoHS requiremen apply)	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 requiremen	3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)							
4 - Product(s) does not meet EU RoHS req	4 - Product(s) does not meet EU RoHS requirements and is not under exemptions							
Exemption Id.	Exemption Id. Description							
7a Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)								

QueryList: ELV directive: 2000/53/EC amended 2017/2096 _November 2017						
Query Response						
1 - Product(s) meets EU ELV requirements	FALSE					
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)						
Exemption Id.	Exemption Id. Description					
8e Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)						

QueryList : California Prop65 list, dated 23rd November 2018							
Qu	Response						
1 - The product does not contain identified substance from California Prop 65 List, no	FALSE						
2 - The product is containing below substance(s) from California Prop 65 List, no expo	TRUE						
Substance	ppm in product						
Nickel	0.46	Die - Leadframe	239				
Lead	2601						

QueryList: REACH-15th January 2019									
	Response								
1 - Product(s) does not contain REACH Sul	FALSE								
CategoryLevel_Name	ppm in product								
Lead	ad 1000 ppm 4.94 Soft solder								
2 - Product(s) does not contain REACH definition within REACH	FALSE								
CategoryLevel_Name	ppm in Article /Homogeneous Material								
Lead	ead 1000 ppm 4.94 Soft solder								

Material Composition Declar note : Substance present with	sition Declaration : present with less 0.001mg will not be declared in this document					Mfr Item Name	JSUV*W75G101					
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	7.495	mg	supplier	die	Silicon (Si)	7440-21-3		7.307	mg	974917	3846
				supplier	metallization	Aluminium (Al)	7429-90-5		0.064	mg	8539	34
				supplier	Passivation	Silicon Oxide	7631-86-9		0.021	mg	2802	11
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	400	2
				supplier	back side metallization	Gold (Au)	7440-57-5		0.007	mg	934	4
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.035	mg	4670	18
				supplier	polymer die coating	Probimide	Proprietary		0.058	mg	7738	31
Leadframe	M-004 Copper and its alloys	647.269	mg	supplier	alloy	Copper (Cu)	7440-50-8		645.974	mg	997999	339986
				supplier	alloy	Iron (Fe)	7439-89-6		0.647	mg	1000	341
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.194	mg	300	102
				supplier	metallization	Nickel (Ni)	7440-02-0		0.420	mg	648	221
				supplier	metallization	Phosphorus (P)	7723-14-0		0.034	mg	53	18
Soft solder	Solder	5.175	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	4.942	mg	954976	2601
				supplier	solder	Silver (Ag)	7440-22-4		0.129	mg	24928	69
				supplier	solder	Tin (Sn)	7440-31-5		0.104	mg	20096	55
Bonding wires	M-011 Other inorganic materials	2.791	mg	supplier	wire	Aluminium (Al)	7429-90-5		2.791	mg	1000000	1469
Encapsulation	M-011 Other inorganic materials	1230.908	mg	supplier	mold compound	Quartz	14808-60-7		861.635	mg	700000	453492
				supplier	mold compound	Silica, vitreous	60676-86-0		92.318	mg	75000	48588
				supplier	mold compound	Epoxy resin	25068-38-6		172.327	mg	140000	90698
				supplier	mold compound	phenol resin	29690-82-2		86.164	mg	70000	45349
				supplier	mold compound	metal hydroxide	21645-51-2		12.309	mg	10000	6478
				supplier	mold compound	carbon black	1333-86-4		6.155	mg	5000	3239
Connections coating	Solder	6.362	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.362	mg	1000000	3348