



Materials Declaration Form

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

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2020-04-10
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
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/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
STPS2045CGY-TR	ASD2*F55SA2Y	A	3068	2020-04-10
	Amount	UoM	Unit type	ST ECOPACK Grade
	1480	mg	Each	ECOPACK 1
Comment	ECOPACK® or ECOPACK® 1 is STMicroelectronics trade name for ROHS compliant devices			

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	245	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	CD00265019	



Package Designator	Size	Nbr of instances	Shape	
SIP	10.20,9.15,4.50	3	gull wing	
Comment	D2PAK			

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 requirement without any exemptions	FALSE
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)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	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 : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
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 3rd January 2020			
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	0.18	di e - leadframe	123
Lead	3.70	soft solder	2501
Antimony trioxide	8.20	encapsulation	5541

QueryList : REACH-16th January 2020				
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
Lead	1000 ppm	3.70	Soft solder	2501
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead	1000 ppm	3.701	Soft solder	954850

Material Composition Declaration :						Mfr Item Name	ASD2*F55SA2Y					
note : Substance present with less 0.001mg will not be declared in this document												
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	7.122	mg	supplier	die	Silicon(Si)	7440-21-3		6.775	mg	951278	4578
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.042	mg	5897	28
				supplier	metallisation	Gold(Au)	7440-57-5		0.040	mg	5616	27
				supplier	metallisation	Nicke(Ni)	7440-02-0		0.077	mg	10812	52
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.009	mg	1264	6
				supplier	metallisation	Tungsten(W)	7440-33-7		0.010	mg	1404	7
				supplier	passivation	Silicon oxide	7631-86-9		0.041	mg	5757	28
				supplier	polymer coating	Durimide	proprietary		0.128	mg	17972	86
Leadframe	M-004 Copper and its alloys	778.660	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		777.532	mg	998551	525359
				supplier	alloy & coating	Nicke(Ni)	7440-02-0		0.105	mg	135	71
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.358	mg	460	242
				supplier	alloy & coating	Iron Phosphide(FeP)	26508-33-8		0.654	mg	840	442
				supplier	alloy & coating	Phosphorus metal	7723-14-0		0.011	mg	14	7
Soft solder	Solder	3.876	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	3.701	mg	954850	2501
				supplier	solder	Silver(Ag)	7440-22-4		0.097	mg	25026	66
				supplier	solder	Tin(Sn)	7440-31-5		0.078	mg	20124	53
Bonding wires	M-003 Aluminum and its alloys	4.706	mg	supplier	wire	Aluminium (Al)	7429-90-5		4.706	mg	1000000	3180
Encapsulation	M-011 Other inorganic materials	683.147	mg	supplier	mold compound	Silica vitreous	60676-86-0		562.230	mg	823000	379885
				supplier	mold compound	Epoxy Cresol Novolac	29690-82-2		47.820	mg	70000	32311
				supplier	mold compound	Phenol resin	9003-35-4		27.326	mg	40000	18464
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		20.494	mg	30000	13846
				supplier	mold compound	Antimony trioxide	1309-64-4		8.198	mg	12000	5539
				supplier	mold compound	Brominated epoxy resin	40039-93-8		13.663	mg	20000	9232
connections coating	Solder	2.489	mg	supplier	mold compound	Carbon black	1333-86-4		3.416	mg	5000	2308
				supplier	solder alloy	Tin (Sn)	7440-31-5		2.489	mg	1000000	1682