



## Materials Declaration Form

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

*\* : Required Field*

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2020-10-20</b>
<b>Company Unique ID</b>	<b>NL 008751171B01</b>		
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	<b>giovanni giacopello</b>	<b>Representative Title</b>	<b>ADG MD CHAMPION</b>
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**Uncertainty Statement**

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**Legal Statement**

<b>Supplier Acceptance *</b>	<b>true</b>	<b>Legal Declaration *</b>	<b>Standard</b>
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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
FDA450LV-T	H5V)*UJ13CFA	A	959	2020-10-20
	Amount	UoM	Unit type	ST ECOPACK Grade
	611	mg	Each	ECOPACK 2
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		
3	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy	CD00348707	



Package Designator	Size	Nbr of instances	Shape	
QFP	14.00,14.00,1.00	100	gull wing	
Comment	TQFP 100 14x14x1 EXP PAD SLUG UP. MDF valid for CPs: FDA450LV,FDA450LV-T			

QueryList : RoHS Directive 2011/65/EU-July 2011 Annex II amended by Delegated Directive 2015/863-March 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

QueryList : ELV directive : 2000/53/EC amended 2020/363_ March 2020	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
Exemption Id.	Description

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	8.01	die - leadframe	13105

QueryList : REACH-25th June 2020				
Query				Response
1 - Product(s) 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
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				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

Responsible metals sourcing	
Query	Response
The component is containing at least one of the following metals : Cobalt , Gold , Tantalum , Tin , Tungsten.	true
The following metals are present is the component :	Gold, Tungsten,
This product is in the scope of the responsible metals sourcing, its compliance is covered by our company processes .	

Material Composition Declaration :						Mfr Item Name	HSV)*UJ13CFA					
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	22.920	mg	supplier	die	Silicon(Si)	7440-21-3		21.711	mg	947250	35539
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.223	mg	9729	365
				supplier	metallisation	Chromium(Cr)	7440-47-3		0.017	mg	742	28
				supplier	metallisation	Gold(Au)	7440-57-5		0.044	mg	1920	72
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.083	mg	3621	136
				supplier	metallisation	Tungsten(W)	7440-33-7		0.177	mg	7723	290
				supplier	metallisation	Vanadium(V)	7440-62-2		0.004	mg	175	7
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.047	mg	2051	77
				supplier	passivation	Silicon oxide	7631-86-9		0.381	mg	16623	624
				supplier	polymer coating	Polyimide	Proprietary		0.233	mg	10166	381
Leadframe	M-004 Copper and its alloys	200.202	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		190.569	mg	951882	311948
				supplier	alloy & coating	Nickel(Ni)	7440-02-0		7.923	mg	39575	12969
				supplier	alloy & coating	Magnesium(Mg)	7439-95-4		0.297	mg	1484	486
				supplier	alloy & coating	Silicon(Si)	7440-21-3		1.288	mg	6434	2108
				supplier	alloy & coating	Palladium(Pd)	7440-05-3		0.064	mg	320	105
				supplier	alloy & coating	Gold(Au)	7440-57-5		0.061	mg	305	100
Die attach	M-011 Other inorganic materials	5.503	mg	supplier	glue	Silver(Ag)	7440-22-4		4.623	mg	840087	7568
				supplier	glue	Bisphenol A diglycidyl ether polymer	25036-25-3		0.220	mg	39978	360
				supplier	glue	Propenenitrile polymer	68610-41-3		0.330	mg	59967	540
				supplier	glue	Aniline polymer	67784-74-1		0.275	mg	49973	450
				supplier	glue	Epoxyde bisphenol A resin	25068-38-6		0.055	mg	9995	90
Bonding wires	M-008 Precious metals	4.236	mg	supplier	wire	Gold(Au)	7440-57-5		4.236	mg	1000000	6934
Encapsulation	M-011 Other inorganic materials	378.039	mg	supplier	mold compound	Silica vitreous	60676-86-0		307.913	mg	814501	504032
				supplier	mold compound	Silicon oxide	7631-86-9		28.353	mg	75000	46412
				supplier	mold compound	Epoxy type resin	proprietary		28.353	mg	75000	46412
				supplier	mold compound	Phenol type resin	proprietary		11.341	mg	30000	18564
				supplier	mold compound	Carbon black	1333-86-4		2.079	mg	5499	3403