



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 *	2016-11-07
Contact Name *	Refer to Supplier Comment section		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

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
STP40NF20	TLDZ*MM2KB61	A	BOUSKOURA B/E	2016-11-07
	Amount	UoM	Unit type	ST ECOPACK Grade
	1900.00	mg	Each	ECOPACK2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
NAC	NAC	NAC		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
SIP	10-9.1-4.5	3	THROUGH HOLE	
Comment	TO 220 AB NON ISOL			

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

QueryList : REACH-20th June 2016				
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

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	TLD2*MM2K861					
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	19.392	mg	supplier	die	Silicon (Si)	7440-21-3		18.727	mg	965708	9856
				supplier	metallization	Aluminium (Al)	7429-90-5		0.075	mg	3868	39
				supplier	Passivation	Silicon Nitride	12033-89-5		0.049	mg	2527	26
				supplier	Passivation	Silicon Oxide	7631-86-9		0.356	mg	18358	187
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.009	mg	463	5
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.130	mg	6704	68
Leadframe	Copper & Its alloys	1253.535	mg	supplier	back side metallization	Silver (Ag)	7440-22-4		0.046	mg	2372	24
				supplier	alloy	Copper (Cu)	7440-50-8		1251.376	mg	998278	658619
				supplier	alloy	Iron (Fe)	7439-89-6		1.253	mg	1000	659
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.376	mg	300	198
				supplier	metallization	Nickel (Ni)	7440-02-0		0.490	mg	391	258
				supplier	metallization	Phosphorus (P)	12185-10-3		0.040	mg	31	21
Soft solder	Solder	17.517	mg	JIG - R	solder	Lead (Pb)	7439-92-1		16.729	mg	955015	8805
				supplier	solder	Silver (Ag)	7440-22-4		0.438	mg	25004	231
				supplier	solder	Tin (Sn)	7440-31-5		0.350	mg	19981	184
Bonding wires	Other inorganic materials	1.618	mg	supplier	wire	Aluminium (Al)	7429-90-5		1.611	mg	995674	848
				supplier	wire	Magnesium (Mg)	7439-95-4		0.007	mg	4326	4
				supplier	mold compound	Silica, vitreous	60676-86-0		523.371	mg	870000	275458
Encapsulation	Other Organic Materials	601.576	mg	supplier	mold compound	Epoxy resin	25068-38-6		60.158	mg	100001	31662
				supplier	mold compound	Phenol resin	29690-82-2		15.039	mg	24999	7915
				supplier	mold compound	Carbon Black	1333-86-4		3.008	mg	5000	1583
				supplier	solder alloy	Tin (Sn)	7440-31-5		6.362	mg	1000000	3348