

Materials Declaration Form

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

Supplier Information							
Company Name *	STMicroelectronics	Response Date *	2020-04-16				
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 - STMicroel http://www.st.com/web/en/support						

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Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	Standard
Legal Statement	of the date that Supplier completes this products. Company acknowledges that may not have independently verified provided by others, Supplier agrees that those certifications are at least as omplian agreement with respect to the identiti	form. Supplier acknowledges that Company will rele Supplier may have relied on information provided such information. However, in situations where at, at a minimum, its suppliers have provided certif rehensive as the certification in this paragraph. I fied part(s), the terms and conditions of that ag be the sole and exclusive source of the Supplier's	rue and correct to the best of its knowledge and bel y on this certification in determining the compliance by others in completing this form, and that Su e Supplier has not independently verified inform fications regarding their contributions to the part(s If the Company and the Supplier enter into a w greement, including any warranty rights and/or rem liability and the Company's remedies for issues that

oduct				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
SMC30J16CA	8HZK*TWB019M	А	9941	2020-04-16
	Amount	UoM	Unit type	ST ECOPACK Grade
	250	mg	Each	ECOPACK [®] 2
Comment	ECOPACK® 2 is STMicroelectronic and without Antimony oxide flame re			lorinated compound (900ppm)

Manufacturing information							
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles					
1	260	3					
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	life.augmented			
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy		menadginemed			

Package Designator	Package Designator Size		Shape	
SOJ 4.5X2.16X3.68		2	J bend	
Comment Package: SMC CLIP (SOD 15 NEW)				

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 2015							
	Response						
1 - Product(s) meets EU RoHS requiremen	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)							
3 - Product(s) meets EU RoHS requiremen	TRUE						
4 - Product(s) does not meet EU RoHS req	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/E	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 requireme	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 : ELV directive : 2000/53/EC amended 2017/2096 _November 2017							
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 exp	TRUE						
Substance	ppm in product						
Nickel	0.10 Die		384				
Lead	3.89	Soft solder	15568				

QueryList : REACH-16th July 2019								
	Response							
1 - Product(s) does not contain REACH Sul	FALSE							
CategoryLevel_Name	ppm in product							
Lead	1000 ppm	3.89	Soft solder	15568				
2 - Product(s) does not contain REACH definition within REACH	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							
CategoryLevel_Name	ppm in Article /Homogeneous Material							
Lead	1000 ppm	924905						

Material Composition Declar note : Substance present with	ation : less 0.001mg will not be declared in this do	ocument				Mfr Item Name	8HZK*	ТWB019М				
Iomogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	homogeneous	Concentration in product (ppm)
Die	M-011 Other inorganic materials	9.525	mg	supplier	die	Silicon (Si)	7440-21-3		9.059	mg	951076	36236
				supplier	metallization	Aluminium (Al)	7429-90-5		0.053	mg	5563	212
				supplier	metallization	Gold (Au)	7440-57-5		0.038	mg	3990	152
				supplier	passivation	Nickel (Ni)	7440-02-0		0.038	mg	3990	152
				supplier	metallization	Titanium (Ti)	7440-32-6		0.008	mg	840	32
				supplier	metallization	Tungsten (W)	7440-33-7		0.013	mg	1365	52
				supplier	Passivation	Silicon Oxide	7631-86-9		0.052	mg	5459	208
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.035	mg	3675	140
				supplier	back side metallization	Gold (Au)	7440-57-5		0.012	mg	1260	48
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.058	mg	6089	232
				supplier	polymer die coating	Durimide	Proprietary		0.159	mg	16693	636
eadframe & Clips	M-004 Copper and its alloys	88.360	mg	supplier	alloy	Copper (Cu)	7440-50-8		88.317	mg	999513	353268
				supplier	alloy	Iron (Fe)	7439-89-6		0.009	mg	102	36
				supplier	alloy	Phosphorus metal	7723-14-0		0.030	mg	340	120
				supplier	alloy	Zinc (Zn)	7440-66-6		0.004	mg	45	16
oft solder	Solder	4.208	mg	SVHC	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	3.892	mg	924905	15568
				supplier	solder	Silver (Ag)	7440-22-4		0.105	mg	24952	420
				supplier	solder	Tin (Sn)	7440-31-5		0.211	mg	50143	844
Incapsulation	M-011 Other inorganic materials	145.803	mg	supplier	mold compound	Amorphous silica	7631-86-9		129.034	mg	884989	516136
				supplier	mold compound	Epoxy Cresol Novolac	29690-82-2		8.748	mg	59999	34992
				supplier	mold compound	Phenolic resin	9003-35-4		6.562	mg	45004	26248
				supplier	mold compound	Carbon black	1333-86-4		0.583	mg	3999	2332
				supplier	mold compound	Magnesium oxide	1309-48-4		0.292	mg	2003	1168
				supplier	mold compound	Aluminium hydroxide	21645-51-2		0.292	mg	2003	1168
				supplier	mold compound	Mercaptopropyl trimethoxysilane	4420-74-0		0.292	mg	2003	1168
connections coating	Solder	2.104	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.104	mg	1000000	8416