



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2021-07-22
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	giovanni giacopello	Representative Title	ADG Material Declaration champion
Representative Phone *	Refer to Supplier Comment section		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
STP50N65DM6	XLDZ*PQFLB62	A	3068	2021-07-22
	Amount	UoM	Unit type	ST ECOPACK Grade
	1900	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		 life.augmented
Not Applicable	Not Applicable	,		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM00508773	

Package Designator	Package Size	Nbr of instances	Shape	
SIP	10.00,9.10,4.50	3	Through hole	
Comment	TO 220 AB NON ISOL			

QueryList : RoHS Directive 2011/65/EU- 8 June 2011 – Annex II amended by Delegated Directive 2015/863 - 31 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 2020/363_March 2020	
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	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 19th March 2021			
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	7.67	die - leadframe	4036
Lead	11.72	soft solder	6166

QueryList : REACH-19th January 2021				
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	11.72	Soft solder	6166
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	11.72	Soft solder	955005

QueryList : 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 :	Tin,
This product is in the scope of the responsible metals sourcing, its compliance is covered by our company processes .	

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	XLDZ*PQFLB62					
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	18.121	mg	supplier	die	Silicon(Si)	7440-21-3		16.216	mg	894874	8535
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.423	mg	23343	223
				supplier	metallisation	Copper(Cu)	7440-50-8		0.156	mg	8609	82
				supplier	metallisation	Nickel(Ni)	7440-02-0		1.084	mg	59820	571
				supplier	metallisation	Silver(Ag)	7440-22-4		0.110	mg	6070	58
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.027	mg	1490	14
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.097	mg	5353	51
				supplier	passivation	Silicon oxide	7631-86-9		0.008	mg	441	4
Leadframe	M-004 Copper and its alloys	1259.777	mg	supplier	alloy	Copper(Cu)	7440-50-8		1251.376	mg	993332	658619
				supplier	alloy	Iron(Fe)	7439-89-6		1.253	mg	995	659
				supplier	alloy	Iron phosphide	26508-33-8		0.376	mg	298	198
				supplier	metallization	Nickel (Ni)	7440-02-0		6.584	mg	5226	3465
				supplier	metallization	Phosphorus (P)	7723-14-0		0.188	mg	149	99
Soft solder	Solder	12.268	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	11.716	mg	955005	6166
				supplier	solder	Silver(Ag)	7440-22-4		0.307	mg	25024	162
				supplier	solder	Tin(Sn)	7440-31-5		0.245	mg	19971	129
Bonding wires	M-003 Aluminum and its alloys	1.324	mg	supplier	wire	Aluminium (Al)	7429-90-5		1.324	mg	1000000	697
Bonding wires 2	M-003 Aluminum and its alloys	0.147	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.146	mg	993197	77
				supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	6803	1
Encapsulation	M-011 Other inorganic materials	602.001	mg	supplier	mold compound	Silica vitreous	60676-86-0		418.993	mg	696000	220523
				supplier	mold compound	Quartz	14808-60-7		60.200	mg	100000	31684
				supplier	mold compound	Phenol resin	9003-35-4		36.120	mg	60000	19011
				supplier	mold compound	Epoxy resin	proprietary		78.260	mg	130000	41189
				supplier	mold compound	Carbon black	1333-86-4		3.010	mg	5000	1584
				supplier	mold compound	Polyethylene resin	9002-88-4		2.408	mg	4000	1267
				supplier	mold compound	Mercaptopropyl trimethoxysilane	4420-74-0		2.408	mg	4000	1267
				supplier	mold compound	Triphenylphosphine	603-35-0		0.602	mg	1000	317
Connections coating	Solder	6.362	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.362	mg	1000000	3348