



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 *	2021-12-06
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section	Contact Email *	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	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
STD80N450K6	XMDP*V98FB52	A	3068	2021-12-06
	Amount	UoM	Unit type	ST ECOPACK Grade
	330	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
1	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM00821804	

Package Designator	Package Size	Nbr of instances	Shape	
SIP	6.50,6.10,2.30	3	gull wing	
Comment	TO 252 DPAK			

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	1.28	die - leadframe	3873
Lead	2.56	soft solder	7748

QueryList : REACH-8th July 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	2.56	Soft solder	7748
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	2.56	Soft solder	954817

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 in the component :	Tin, Tungsten,
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	XMDP*V98F852									
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	5.175	mg	supplier	die	Silicon(Si)	7440-21-3		4.584	mg	885798	13892				
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.076	mg	14686	230				
				supplier	metallisation	Copper(Cu)	7440-50-8		0.005	mg	966	15				
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.046	mg	8889	139				
				supplier	metallisation	Silver(Ag)	7440-22-4		0.022	mg	4251	67				
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.009	mg	1739	27				
				supplier	metallisation	Tungsten(W)	7440-33-7		0.027	mg	5217	82				
				supplier	metallisation	Vanadium(V)	7440-62-2		0.002	mg	386	6				
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.017	mg	3285	52				
				supplier	passivation	Silicon oxide	7631-86-9		0.037	mg	7150	112				
				supplier	polymer coating	polyimide	proprietary		0.350	mg	67633	1061				
				Leadframe	M-004 Copper and its alloys	166.231	mg	supplier	alloy	Copper(Cu)	7440-50-8		164.749	mg	991085	499239
								supplier	alloy	Iron phosphide	26508-33-8		0.139	mg	836	421
supplier	alloy	Iron(Fe)	7439-89-6						0.076	mg	457	230				
supplier	metallization	Nickel (Ni)	7440-02-0						1.232	mg	7411	3733				
supplier	metallization	Phosphorus (P)	7723-14-0						0.035	mg	211	106				
Soft solder	Solder	2.678	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	2.557	mg	954817	7748				
				supplier	solder	Silver(Ag)	7440-22-4		0.067	mg	25019	203				
				supplier	solder	Tin(Sn)	7440-31-5		0.054	mg	20164	164				
Bonding wires	M-003 Aluminum and its alloys	0.800	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.800	mg	1000000	2424				
Bonding wires 2	M-003 Aluminum and its alloys	0.088	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.088	mg	1000000	267				
Encapsulation	M-011 Other inorganic materials	153.983	mg	supplier	mold compound	Silica vitreous	60676-86-0		134.735	mg	874999	408288				
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		6.159	mg	39998	18664				
				supplier	mold compound	Epoxy type resin	proprietary		4.620	mg	30003	14000				
				supplier	mold compound	Phenol type resin	proprietary		7.699	mg	49999	23330				
				supplier	mold compound	Carbon black	1333-86-4		0.770	mg	5001	2333				
Connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3167				