



## Materials Declaration Form

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

*\* : Required Field*

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2021-04-14
<b>Company Unique ID</b>	NL 008751171B01		
<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>	Antonella Lanzafame	<b>Representative Title</b>	AMS Material Declaration champion
<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>		

<b>Uncertainty Statement</b>		
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<b>Legal Statement</b>		
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b> Standard
<b>Legal Statement</b>	<p>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.</p>	

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
IPS2050H	19V5*VP23AA6	A	MU1A	2021-04-14
	Amount	UoM	Unit type	ST ECOPACK Grade
	470.00	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	,	



Package Designator	Package Size	Nbr of instances	Shape	
DSO	7 x 7	44	Gull wing	
Comment	V5 PowerSSO24; MD valid also for CP: IPS2050HTR			

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	true
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
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	0.11	alloy	228
Lead	8.50	solder	18089

QueryList : Chinese RoHS , references : SJT 11364 – 2014 and GBT 26572 – 2014				
Query				Response
1 - Product(s) requires marking for the presence of restricted substances and must be marked with an Environmental Protection Use Period under China's Measures for Administration of the control of pollution by Electronic Information Products				true
2 - Product(s) is eligible for marking with the e code under China's Measures for Administration of the control of pollution by Electronic Information Products				false
Hasardous substance				
Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Hexavalent Chromium (Cr VI)	PBB & PBDE
X	O	O	O	O
Die attach				
is Homogeneous Material containing Lead				

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	8.50	Die attach	18089
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	8.502	Die attach	975000

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

QueryList : Korea Chemical Control Act_ 27 Dec 2017 update			
Query			Response
The Product does contain at least one of the substances listed in Chemical Control Act			false
			Application Purpose

China GB 33372-2020 Limit standard for volatile organic compounds content in adhesives - 4 March 2020 application date 1st December 2020	
Query	Response
The product contains adhesives identified under GB 33372	false

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	19V5*VP23AA6	469.9996		6000000.0	1000000.0	
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	16.895	mg	supplier	die	Silicon(Si)	7440-21-3		15.658	mg	926783	33315
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.096	mg	5682	204
				supplier	metallisation	Copper(Cu)	7440-50-8		0.129	mg	7635	274
				supplier	metallisation	Gold(Au)	7440-57-5		0.023	mg	1361	49
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.107	mg	6333	228
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.416	mg	24623	885
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.074	mg	4380	157
				supplier	passivation	Silicon oxide	7631-86-9		0.200	mg	11838	426
				supplier	polymer coating	polyimide	proprietary		0.192	mg	11364	409
				Leadframe	M-004 Copper and its alloys	162.716	mg	supplier	alloy	Copper(Cu)	7440-50-8	
supplier	alloy	Iron(Fe)	7439-89-6						3.725	mg	22893	7926
supplier	alloy	Iron phosphide	1310-43-6						0.224	mg	1377	477
supplier	alloy	Zinc(Zn)	7440-66-6						0.195	mg	1198	415
supplier	metallization	Silver (Ag)	7440-22-4						0.214	mg	1315	455
Die attach	M-011 Other inorganic materials	8.720	mg	SVHC	glue	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	8.502	mg	975000	18089
				supplier	glue	Silver(Ag)	7440-22-4		0.131	mg	15023	279
				supplier	glue	Tin(Sn)	7440-31-5		0.087	mg	9977	185
Bonding wires	M-004 Copper and its alloys	1.078	mg	supplier	wire	Copper(Cu)	7440-50-8		1.078	mg	1000000	2294
Bonding wires 2	M-008 Precious metals	0.085	mg	supplier	wire	Gold(Au)	7440-57-5		0.085	mg	999900	180
				supplier	wire	Palladium(Pd)	7440-05-3		0.000	mg	100	0
Encapsulation	M-011 Other inorganic materials	280.506	mg	supplier	mold compound	Silica vitreous	60676-86-0		248.248	mg	885001	528187
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		14.867	mg	53001	31632
				supplier	mold compound	Phenol resin	205830-20-2		11.220	mg	39999	23872
				supplier	mold compound	Epoxy type resin	proprietary		5.610	mg	20000	11936
				supplier	mold compound	Carbon black	1333-86-4		0.561	mg	2000	1194