



## 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  <i>* : Required Field</i>

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2021-12-01
<b>Company Unique ID</b>	NL 008751171B01		
<b>Contact Name *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section		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>		

**Uncertainty Statement**

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Legal Statement		
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>
		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
TSC2011IYST	EBE3*US58CBY	A	ZY1A	2021-12-01
	Amount	UoM	Unit type	ST ECOPACK Grade
	23.71	mg	Each	ECOPACK® 3
Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony			

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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy	,	

Package Designator	Package Size	Nbr of instances	Shape	
SOP	3 x 3	8	gull wing	
Comment	E3 MSOP/TSSOP 8 BODY3.00 PITCH0.65			

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	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 : 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

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			TRUE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			FALSE
Substance	amount in product (mg)	Application	ppm in product

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				false
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
Hazardous substance				
Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Hexavalent Chromium (Cr VI)	PBB & PBDE
0	0	0	0	0

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				true
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
	0			
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				true
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article / Homogeneous Material
	0			

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

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

Stockholm Convention Persistent Organic Pollutants	
Query	Response
Product is compliant with Stockholm Convention Persistent Organic Pollutants Annex I	true

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	EBE3*USSRCBY		23.7100		5999997.0	1000003.0	
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	2.231	mg	supplier	die	Silicon(Si)	7440-21-3		2.124	mg	952039	89582	
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.021	mg	9413	886	
				supplier	metallisation	Copper(Cu)	7440-50-8		0.004	mg	1793	169	
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.001	mg	448	42	
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.006	mg	2689	253	
				supplier	passivation	Silicon oxide	7631-86-9		0.052	mg	23308	2193	
				supplier	polymer coating	polyimide	proprietary		0.023	mg	10309	970	
Leadframe	M-004 Copper and its alloys	11.525	mg	supplier	alloy	Copper (Cu)	7440-50-8		11.200	mg	971800	472375	
				supplier	alloy	Iron (Fe)	7439-89-6		0.235	mg	20390	9911	
				supplier	alloy	Zinc (Zn)	7440-66-6		0.014	mg	1215	590	
				supplier	alloy	Metallic Phosphorus (P)	7723-14-0		0.003	mg	260	127	
				supplier	alloy	Silver (Ag)	7440-22-4		0.073	mg	6334	3079	
Die attach	M-011 Other inorganic materials	0.158	mg	supplier	glue	Silver (Ag)	7440-22-4		0.119	mg	750000	4998	
				supplier	glue	Reaction product; bisphenol-F-(epichlorhydrin	9003-36-5		0.011	mg	70000	466	
				supplier	glue	Fatty acids, C18-unsatd., dimers, polymers with	68475-94-5		0.006	mg	40000	267	
					should not be present	glue	gamma. Butyrolactone	96-48-0		0.006	mg	40000	267
				supplier	glue	Polyoxyalkylene amine	9046-10-0		0.006	mg	40000	267	
				supplier	glue	Epoxy Resin	Proprietary		0.006	mg	40000	267	
				supplier	glue	Copper Oxide	1317-38-0		0.002	mg	10000	67	
Bonding wires	M-008 Precious metals	0.155	mg	supplier	wire	1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8		0.002	mg	10000	67	
	Ø			supplier	wire	Gold (Au)	7440-57-5		0.153	mg	987097	6453	
Encapsulation	M-011 Other inorganic materials	8.831	mg	supplier	wire	Palladium (Pd)	7440-05-3		0.002	mg	12903	84	
				supplier	mold compound	Epoxy Resin	Proprietary		0.440	mg	49824	18558	
				supplier	mold compound	Phenol Resin	Proprietary		0.440	mg	49824	18558	
				supplier	mold compound	Silica Amorphous A (SiO2)	60676-86-0		6.633	mg	751104	279755	
				supplier	mold compound	Silica Amorphous B (SiO2)	7631-86-9		1.309	mg	148228	55209	
supplier	mold compound	Carbon Black	1333-86-4		0.009	mg	1019	380					
Connections coating	Solder	0.810	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.810	mg	1000000	34163	