



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 *	2021-02-02
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 *	Antonella lanzafame	Representative Title	AMS 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
TSV324YDT	IDK7*1874ARY	A	BO2A	2021-02-02
Amount	UoM	Unit type	ST ECOPACK Grade	
130	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
D50	8.6 x 3.9	14	Gull wing
Comment	K7 SO 14 .15 TO JEDEC MS-012		

QueryList : RoHS Directive 2011/65/EU - 6 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 '70' 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 18th December 2020

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	0.17		1285
Lead	0.00		0
Lead-Borate Glass	0.00		0
Lead Zirconate Titanate	0.00		0
Antimony trioxide	0.00		0
Bisphenol A	0.00		0

QueryList : Chinese RoHS , references : SJT 11364 - 2014 and GB 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-25th June 2020

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	
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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	
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.					
.					
.					

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,
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		true
All the adhesive impacted complies with GB 33372		true

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	IDK7*1874ARY	130.0000		4999998.0	999999.0	
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	2.976	mg	supplier	die	Silicon(Si)	7440-21-3		2.952	mg	991935	22708
	M-011 Other inorganic materials			supplier	die	Silicium carbide	409-21-2		0.000	mg	0	0
				supplier	die	Mica	13001-26-2		0.000	mg	0	0
				supplier	die	Gallium Arsenide	1303-00-0		0.000	mg	0	0
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.010	mg	3360	77
				supplier	metallisation	Aluminium nitride	24304-00-5		0.000	mg	0	0
				supplier	metallisation	Antimony(Sb)	7440-36-0		0.000	mg	0	0
				supplier	metallisation	Arsenic(As)	7440-38-2		0.000	mg	0	0
				supplier	metallisation	Bismuth(Bi)	7440-69-9		0.000	mg	0	0
				supplier	metallisation	Bore(B)	7440-42-8		0.000	mg	0	0
				supplier	metallisation	Chromium(Cr)	7440-47-3		0.000	mg	0	0
				supplier	metallisation	Copper(Cu)	7440-50-8		0.000	mg	0	0
				supplier	metallisation	Cobalt(Co)	7440-48-4		0.000	mg	0	0
				supplier	metallisation	Gallium nitride	25617-97-4		0.000	mg	0	0
				supplier	metallisation	Germanium(Ge)	7440-56-4		0.000	mg	0	0
				supplier	metallisation	GeSbTe	proprietary		0.000	mg	0	0
				supplier	metallisation	Gold(Au)	7440-57-5		0.000	mg	0	0
				supplier	metallisation	Iridium oxide	12030-49-8		0.000	mg	0	0
				supplier	metallisation	Iron(Fe)	7439-89-6		0.000	mg	0	0
				supplier	metallisation	Lanthane(La)	7439-91-0		0.000	mg	0	0
				supplier	metallisation	Lithium(Li)	7439-93-2		0.000	mg	0	0
				supplier	metallisation	Lithium cobalt oxide	12190-79-3		0.000	mg	0	0
				supplier	metallisation	Lithium phosphate	10377-52-3		0.000	mg	0	0
				supplier	metallisation	Manganese(Mn)	7439-96-5		0.000	mg	0	0
				supplier	metallisation	Molybdenum(Mo)	7439-98-7		0.000	mg	0	0
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.000	mg	0	0
				supplier	metallisation	Palladium(Pd)	7440-05-3		0.000	mg	0	0
				supplier	metallisation	Platinum(Pt)	7440-06-4		0.000	mg	0	0
				supplier	metallisation	Silver(Ag)	7440-22-4		0.000	mg	0	0
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.000	mg	0	0
				supplier	metallisation	Tin(Sn)	7440-31-5		0.000	mg	0	0
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.000	mg	0	0
				supplier	metallisation	Tungsten(W)	7440-33-7		0.000	mg	0	0
				supplier	metallisation	Vanadium(V)	7440-62-2		0.000	mg	0	0
				supplier	metallisation	Zirconium(Zr)	7440-67-7		0.000	mg	0	0
	SVHC				Passivation	Lead(Pb)	7439-92-1	7c-I-Electrical and electronic co	0.000	mg	0	0
				supplier	Passivation	Barium titanate	12047-27-7		0.000	mg	0	0
				supplier	Passivation	Hafniumoxide	12055-23-1		0.000	mg	0	0
				supplier	Passivation	Indium Tin oxide	50926-11-9		0.000	mg	0	0
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.008	mg	2688	62
				supplier	passivation	Silicon oxide	7631-86-9		0.006	mg	2016	46
				supplier	passivation	Sapphire	1317-82-4		0.000	mg	0	0
				supplier	passivation	Strontium titanate	12060-59-2		0.000	mg	0	0
	SVHC				passivation	Lead Zirconate Titanate(PZT)	12626-81-2	7c-I-Electrical and electronic co	0.000	mg	0	0
				supplier	glass	AluminiumOxide	1344-28-1		0.000	mg	0	0
	JIG-R & California 65			supplier	glass	Lead-BorateGlass	65997-18-4	7c-I-Electrical and electronic	0.000	mg	0	0
				supplier	glass	Borosilicateglass	65997-17-3		0.000	mg	0	0
				supplier	glass	Glass:PotassiumOxide	12136-45-7		0.000	mg	0	0
				supplier	glass	Glass:SodiumOxide	1313-59-3		0.000	mg	0	0
				supplier	glass	Quartz	14808-60-7		0.000	mg	0	0
				supplier	polymer coating	Polymer resist-Benzocyclobutene(BCB)	694-87-1		0.000	mg	0	0
				supplier	polymer coating	BCB	124221-30-3		0.000	mg	0	0
				supplier	polymer coating	PBOPolybenzoxazol	29791-96-6		0.000	mg	0	0
				supplier	polymer coating	Polymer resist-ASAHI	proprietary		0.000	mg	0	0
				supplier	polymer coating	Polymer resist(Blackresist)	proprietary		0.000	mg	0	0
				supplier	polymer coating	Polymer resist(color_planar_plens)	proprietary		0.000	mg	0	0
				supplier	polymer coating	Polymer resist(Glue)	proprietary		0.000	mg	0	0
				supplier	polymer coating	PVDC(polyvinylidenechloride)	9002-85-1		0.000	mg	0	0
				supplier	polymer coating	PolyimideAH1200	proprietary		0.000	mg	0	0

	0			supplier	wire	0	0		0.000	mg	0	0
Bonding wires 2	0	0.000	mg	supplier	wire	0	0		0.000	mg	0	0
	0			supplier	wire	0	0		0.000	mg	0	0
	0			supplier	wire	0	0		0.000	mg	0	0
	0			supplier	wire	0	0		0.000	mg	0	0
	0			supplier	wire	0	0		0.000	mg	0	0
	0			supplier	wire	0	0		0.000	mg	0	0
	0			supplier	wire	0	0		0.000	mg	0	0
Bonding wires 3	0	0.000	mg	supplier	wire	0	0		0.000	mg	0	0
	0			supplier	wire	0	0		0.000	mg	0	0
	0			supplier	wire	0	0		0.000	mg	0	0
	0			supplier	wire	0	0		0.000	mg	0	0
	0			supplier	wire	0	0		0.000	mg	0	0
	0			supplier	wire	0	0		0.000	mg	0	0
	0			supplier	wire	0	0		0.000	mg	0	0
Bonding Ribbons	0	0.000	mg	supplier	ribbon	0	0		0.000	mg	0	0
				supplier	ribbon	0	0		0.000	mg	0	0
				supplier	ribbon	0	0		0.000	mg	0	0
Underfill	M-015 Other organic materials	0.000	mg	supplier	resin	0	0		0.000	mg	0	0
				supplier	resin	0	0		0.000	mg	0	0
				supplier	resin	0	0		0.000	mg	0	0
				supplier	resin	0	0		0.000	mg	0	0
				supplier	resin	0	0		0.000	mg	0	0
				supplier	resin	0	0		0.000	mg	0	0
				supplier	resin	0	0		0.000	mg	0	0
				supplier	resin	0	0		0.000	mg	0	0
				supplier	resin	0	0		0.000	mg	0	0
				supplier	resin	0	0		0.000	mg	0	0
				supplier	resin	0	0		0.000	mg	0	0
				supplier	resin	0	0		0.000	mg	0	0
Encapsulation	M-011 Other inorganic materials	91.372	mg	supplier	mold compound	Silica vitreous	60676-86-0	79.127	mg	865987	608669	
				supplier	mold compound	Epoxy type resin	proprietary	6.853	mg	75001	52715	
				supplier	mold compound	Phenol type resin	proprietary	4.569	mg	50004	35146	
				supplier	mold compound	Carbon black	1333-86-4	0.457	mg	5002	3515	
				supplier	mold compound	Bismuth compound	7440-69-9	0.366	mg	4006	2815	
				supplier	mold compound		0	0.000	mg	0	0	
				supplier	mold compound		0	0.000	mg	0	0	
				supplier	mold compound		0	0.000	mg	0	0	
				supplier	mold compound		0	0.000	mg	0	0	
				supplier	mold compound		0	0.000	mg	0	0	
				supplier	mold compound		0	0.000	mg	0	0	
				supplier	mold compound		0	0.000	mg	0	0	
BBB		0.000	mg	#N/A					0.000	mg	0	0
				#N/A					0.000	mg	0	0
				#N/A					0.000	mg	0	0
				#N/A					0.000	mg	0	0
solder paste	Solder	0.000	mg	supplier	solder		0	0	0.000	mg	0	0
				supplier	solder		0	0	0.000	mg	0	0
				supplier	solder		0	0	0.000	mg	0	0
				supplier	solder		0	0	0.000	mg	0	0
				supplier	solder		0	0	0.000	mg	0	0
				supplier	solder		0	0	0.000	mg	0	0
				supplier	solder		0	0	0.000	mg	0	0
				supplier	solder		0	0	0.000	mg	0	0
				supplier	solder		0	0	0.000	mg	0	0
Connections coating	Solder	0.000	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.000	mg	0	0

