



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2020-06-05
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 *	Floriana SAN BIAGIO	Representative Title	AMS MD 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
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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
	1VWV*U1RUAA5	A	9992	2020-06-05
	Amount	UoM	Unit type	ST ECOPACK Grade
	16	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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Package Size	Nbr of instances	Shape	
DSO	2.9 x 1.6	5	Gull wing	
Comment	WV SOT 23 5L; MDF is valid for ST732M50R			

QueryList : RoHS Directive 2011/65/EU-July 2011 Annex II amended by Directive 2015/863-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 3rd January 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	0.07	alloy&coating	4270

QueryList : REACH-16th January 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
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

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
Substance	Homogeneous Material impacted	Content in Homogeneous Material (mg)	Concentration in the material(%)	Application Purpose

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	1VWV*U1RUAAS				4999863.0	1002260.0
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	0.652	mg	supplier	die	Silicon(Si)	7440-21-3		0.615	mg	943252	38438
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.008	mg	12270	500
				supplier	metallisation	Tungsten(W)	7440-33-7		0.006	mg	9202	375
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.002	mg	3067	125
				supplier	passivation	Silicon oxide	7631-86-9		0.013	mg	19939	813
				supplier	polymer coating	polyimide	proprietary		0.008	mg	12270	500
Leadframe	M-004 Copper and its alloys	6.832	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		6.608	mg	967223	413000
				supplier	alloy & coating	Nickel(Ni)	7440-02-0		0.068	mg	9953	4250
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.143	mg	20931	8938
				supplier	alloy & coating	Phosphorus metal	7723-14-0		0.001	mg	146	63
				supplier	alloy & coating	Zinc(Zn)	7440-66-6		0.003	mg	439	188
				supplier	alloy & coating	Palladium(Pd)	7440-05-3		0.007	mg	1025	438
Die attach	M-015 Other organic materials	0.037	mg	supplier	glue	Aluminium oxide	1344-28-1		0.013	mg	350000	809
				supplier	glue	Ethyl acetate	112-15-2		0.009	mg	250000	578
				supplier	glue	Epoxy Resin	Proprietary		0.009	mg	250000	578
				supplier	glue	Epichlorohyd.-bisphenol A resin	25068-38-6		0.003	mg	70000	162
				supplier	glue	Aromatic polyamine	Proprietary		0.003	mg	70000	162
				supplier	glue	Aminopropyltriethoxysilane	919-30-2		0.000	mg	10000	23
Bonding wires	M-004 Copper and its alloys	0.158	mg	supplier	wire	Copper (Cu)	7440-50-8		0.155	mg	982500	9708
				supplier	wire	Palladium (Pd)	7440-05-3		0.003	mg	17500	173
				supplier								
Encapsulation	M-015 Other organic materials	8.358	mg	supplier	mold compound	Solid Epoxy Resin-1	Proprietary		0.167	mg	20000	10448
				supplier	mold compound	Solid Epoxy Resin-2	Proprietary		0.167	mg	20000	10448
				supplier	mold compound	Phenol resin	Proprietary		0.334	mg	40000	20895
				supplier	mold compound	Amorphous Silica	60676-86-0		7.439	mg	890000	464914
				supplier	mold compound	Carbon Black	1333-86-4		0.042	mg	5000	2612
				supplier	mold compound	Crystalline silica	14808-60-7		0.209	mg	25000	13059