



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2020-05-21
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
	9BI0*UAF5ADA	A	9998	2020-05-21
	Amount	UoM	Unit type	ST ECOPACK Grade
	59	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
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	5 x 4.4	16	Gull wing	
Comment	I0 HTSSOP 16 4.4 PITCH 0.65 EXPAD; MDF is valid for A6986TR and A6986			

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	0.83	die	13990

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
,	0		,	

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	9Bi0*UAFSADA				6000001.0	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	3.474	mg	supplier	die	Silicon(Si)	7440-21-3		3.158	mg	909039	53165
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.019	mg	5469	320
				supplier	metallisation	Chromium(Cr)	7440-47-3		0.002	mg	576	34
				supplier	metallisation	Copper(Cu)	7440-50-8		0.178	mg	51238	2997
				supplier	metallisation	Gold(Au)	7440-57-5		0.006	mg	1727	101
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.012	mg	3454	202
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.002	mg	576	34
				supplier	metallisation	Tungsten(W)	7440-33-7		0.003	mg	864	51
				supplier	metallisation	Vanadium(V)	7440-62-2		0.001	mg	288	17
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.009	mg	2591	152
				supplier	passivation	Silicon oxide	7631-86-9		0.084	mg	24180	1414
				supplier	alloy & coating	Copper(Cu)	7440-50-8		26.256	mg	939963	442020
				supplier	alloy & coating	Nickel(Ni)	7440-02-0		0.819	mg	29320	13788
Leadframe	M-004 Copper and its alloys	27.933	mg	supplier	alloy & coating	Magnesium(Mg)	7439-95-4		0.041	mg	1468	690
				supplier	alloy & coating	Silicon(Si)	7440-21-3		0.177	mg	6337	2980
				supplier	alloy & coating	Silver (Ag)	7440-22-4		0.640	mg	22912	10774
				supplier	glue	Epoxy resin	9003-36-5		0.002	mg	200000	34
				supplier	glue	Silver(Ag)	7440-22-4		0.007	mg	700000	118
Die attach	M-015 Other organic materials	0.010	mg	supplier	glue	Aromatic amineProprietary	Proprietary		0.001	mg	100000	17
				supplier	wire	Gold (Au)	7440-57-5		0.564	mg	1000000	9495
				supplier	glue	Epoxy resin	9003-36-5		0.002	mg	200000	34
Bonding wires	M-008 Precious metals	0.564	mg	supplier	wire	Gold (Au)	7440-57-5		0.564	mg	1000000	9495
				supplier	mold compound	Silica vitreous	60676-86-0		22.396	mg	866014	377037
				supplier	mold compound	Epoxy type resin	proprietary		1.940	mg	75016	32660
				supplier	mold compound	Phenol type resin	proprietary		1.293	mg	49998	21768
				supplier	mold compound	Carbon black	1333-86-4		0.129	mg	4988	2172
Encapsulation	M-015 Other organic materials	25.861	mg	supplier	mold compound	Bismuth compound	7440-69-9		0.103	mg	3983	1734
				supplier	mold compound	Tin (Sn)	7440-31-5		1.558	mg	1000000	26229
connections coating	Solder	1.558	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.558	mg	1000000	26229