



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2019-11-29
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

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
	IYE3*A872AR6	A	9992-ZS1A	2019-11-29
Amount	UoM	Unit type	ST ECOPACK Grade	
28	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		
1	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	0	



Package Designator	Size	Nbr of instances	Shape	
DSO	3 x 3	8	gull wing	
Comment	E3 MSOP/TSSOP 8 BODY3.00 PITCH0.65; MDF is valid for TS1872AIST-TSV358AIST			

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 2017/2096 _November 2017	
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 13th September 2019			
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
Hasardous substance				
Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Hexavalent Chromium (Cr VI)	PBB & PBDE
O	O	O	O	O

QueryList : REACH-16th July 2019				
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				NO
Substance	Homogeneous Material impacted	Content in Homogeneous Material (mg)	Concentration in the material(%)	Application Purpose

Material Composition Declaration :						Mfr Item Name	IYE3*A872AR6				6000001.0	1000000.0
note : Substance present with less 0.001mg will not be declared in this document												
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	1.031	mg	supplier	die	Silicon(Si)	7440-21-3		1.019	mg	988361	36393
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.005	mg	4850	179
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.004	mg	3880	143
				supplier	passivation	Silicon oxide	7631-86-9		0.003	mg	2910	107
Leadframe	M-004 Copper and its alloys	9.890	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		9.562	mg	966835	341500
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.223	mg	22548	7964
				supplier	alloy & coating	Phosphorus metal	7723-14-0		0.002	mg	202	71
				supplier	alloy & coating	Zinc(Zn)	7440-66-6		0.013	mg	1314	464
				supplier	alloy & coating	Silver (Ag)	7440-22-4		0.090	mg	9100	3214
Die attach	M-015 Other organic materials	0.621	mg	supplier	glue	Silver (Ag)	7440-22-4		0.499	mg	803543	17821
				supplier	glue	Carbocyclic Acrylates0%)	Proprietary		0.062	mg	99839	2214
				supplier	glue	Bismaleimide resin	Proprietary		0.019	mg	30596	679
				supplier	glue	2-preponoic acid, 2-methyl	68586-19-6		0.019	mg	30596	679
				supplier	glue	Additive	proprietary		0.019	mg	30596	679
Bonding wires	M-008 Precious metals	0.310	mg	supplier	wire	Dicumyl peroxide	80-43-3		0.003	mg	4831	107
				supplier	wire	Gold (Au)	7440-57-5		0.310	mg	1000000	11071
				supplier	mold compound	Silica	60676-86-0		13.753	mg	889298	491179
				supplier	mold compound	Epoxy resin-1	Proprietary		0.480	mg	31038	17143
Encapsulation	M-015 Other organic materials	15.465	mg	supplier	mold compound	Epoxy resin-2	Proprietary		0.480	mg	31038	17143
				supplier	mold compound	Phenol resin	Proprietary		0.720	mg	46557	25714
				supplier	mold compound	Carbon black	1333-86-4		0.032	mg	2069	1143
				supplier	solder alloy	Tin (Sn)	7440-31-5		0.683	mg	1000000	24393