



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 *	2019-04-10
Company Unique ID	NL 008751171801		
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 *	Rossana Bonaccorso	Representative Title	ADG 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
TDA7708SCB	AA90*VA79CBP	A	ZY1A	2019-04-10
	Amount	UoM	Unit type	ST ECOPACK Grade
	188	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	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	8x8x1.0	103	Flat	
Comment	VFQFPN2 8x8x1.0 52 PITCH 0.5			

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 26th October 2018			
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 : REACH-15th January 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

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	AA90*VA79CBP					
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	7.470	mg	supplier	die	Silicon (Si)	7440-21-3		7.042	mg	942704	37457
				supplier	metallization	Aluminium (Al)	7429-90-5		0.030	mg	4016	160
				supplier	metallization	Copper (Cu)	7440-50-8		0.179	mg	23963	952
				supplier	passivation	Nickel (Ni)	7440-02-0		0.001	mg	134	5
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.029	mg	3882	154
				supplier	metallization	Titanium (Ti)	7440-32-6		0.008	mg	1071	43
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	134	5
				supplier	Passivation	Silicon Nitride	12033-89-5		0.041	mg	5489	218
				supplier	Passivation	Silicon Oxide	7631-86-9		0.139	mg	18607	739
				Leadframe	Copper and its alloy	108.340	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						2.510	mg	23168	13351
supplier	alloy	Zinc (Zn)	7440-66-6						0.128	mg	1181	681
supplier	alloy	Metallic Phosphorus (P)	7723-14-0						0.032	mg	296	170
supplier	metallization	Silver(Ag)	7440-22-4						1.547	mg	14279	8229
supplier	metallization	Silver	7440-22-4						0.980	mg	849220	5213
Die attach	Other organic materials	1.154	mg	supplier	glue	Bisphenol F type liquid epoxy resin	9003-36-5		0.069	mg	59792	367
				supplier	glue	Epoxy resin	25068-38-6		0.065	mg	56326	346
				supplier	glue	P-Tertbutylphenyl glycidyl ether	3101-60-8		0.035	mg	30329	186
				supplier	glue	dicyandiamide	461-58-5		0.005	mg	4333	27
				supplier	wire	Gold (Au)	7440-57-5		0.644	mg	990769	3426
Bonding wires	Other inorganic materials	0.650	mg	supplier	wire	Palladium (Pd)	7440-05-3		0.006	mg	9231	32
				supplier	wire	Palladium (Pd)	7440-05-3		0.006	mg	9231	32
Encapsulation	Other organic materials	69.795	mg	supplier	mold compound	Epoxy Resin A	Proprietary		2.094	mg	30002	11138
				supplier	mold compound	Epoxy Resin B	85954-11-6		2.792	mg	40003	14851
				supplier	mold compound	Phenol Resin	29690-82-2		3.839	mg	55004	20420
				supplier	mold compound	Silica Amorphous A	60676-86-0		52.345	mg	749982	278431
				supplier	mold compound	Silica Amorphous B	7631-86-9		6.282	mg	90006	33415
				supplier	mold compound	Aluminium and its compounds	21645-51-2		2.094	mg	30002	11138
				supplier	mold compound	Carbon Black	1333-86-4		0.349	mg	5001	1856
Connection coating	Other inorganic materials	0.591	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.591	mg	1000000	3144