



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 *	2020-11-06
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	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
VIPER013XSTR	9GW4*MV5WAB6	A	Z9LA	2020-11-06
	Amount	UoM	Unit type	ST ECOPACK Grade
	81	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	4.9 x 3.9	10	Gull wing	
Comment	W4 SSOP 10L 3.9 BODY 1 PITCH			

QueryList : RoHS Directive 2011/65/EU- 8 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 '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	0.02	alloy	235

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

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
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 : 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, Tin, Tungsten,
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
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	9GW4*MV5WAB6	81.0002		6000000.0	999997.0	
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	2.319	mg	supplier	die	Silicon(Si)	7440-21-3		2.173	mg	937042	26827
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.032	mg	13799	395
				supplier	metallisation	Chromium(Cr)	7440-47-3		0.001	mg	431	12
				supplier	metallisation	Copper(Cu)	7440-50-8		0.044	mg	18974	543
				supplier	metallisation	Gold(Au)	7440-57-5		0.004	mg	1725	49
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.019	mg	8193	235
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.001	mg	431	12
				supplier	metallisation	Tungsten(W)	7440-33-7		0.001	mg	431	12
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.009	mg	3881	111
				supplier	passivation	Silicon oxide	7631-86-9		0.035	mg	15093	432
Leadframe	M-004 Copper and its alloys	30.808	mg	supplier	alloy	Cu	7440-50-8		28.368	mg	920800	350222
				supplier	alloy	Fe	7439-89-6		0.867	mg	28142	10704
				supplier	alloy	P	7723-14-0		0.030	mg	974	370
				supplier	alloy	Zn	7440-66-6		0.030	mg	974	370
				SVHC	alloy	Pb	7439-92-1		0.001	mg	32	12
				supplier	alloy	Ag	7440-22-4		1.512	mg	49078	18667
Die attach	M-011 Other inorganic materials	1.200	mg	supplier	glue	Silver	7440-22-4		0.900	mg	750000	11111
				supplier	glue	Acrylate monomer	61434-04-6		0.239	mg	199167	2951
				supplier	glue	Acrylate oligomer	proprietary		0.050	mg	41667	617
				supplier	glue	Bismaleimide resin	proprietary		0.010	mg	8333	123
				supplier	glue	Epoxy resin	proprietary		0.001	mg	833	12
Bonding wires	M-004 Copper and its alloys	0.910	mg	supplier	wire	Cu	7440-50-8		0.889	mg	976923	10975
				supplier	wire	Pd	7440-05-3		0.021	mg	23077	259
Encapsulation	M-011 Other inorganic materials	43.663	mg	supplier	mold compound	Epoxy Resin 1	Trade secret		0.247	mg	5657	3049
				supplier	mold compound	Epoxy Resin 2	Trade secret		0.247	mg	5657	3049
				supplier	mold compound	Epoxy Resin 3	Trade secret		0.247	mg	5657	3049
				supplier	mold compound	Phenol Resin	Trade secret		0.702	mg	16078	8667
				supplier	mold compound	Carbon black	1333-86-4		0.041	mg	939	506
				supplier	mold compound	Amorphous silica	60676-86-0		39.235	mg	898587	484383
				supplier	mold compound	Crystal silica	14808-60-7		0.944	mg	21620	11654
				supplier	mold compound	Tin(Sn)	7440-31-5		2.000	mg	45805	24691
Connections coating	Solder	2.100	mg	supplier	solder alloy	Tin(Sn)	7440-31-5		2.100	mg	999905	25926
				supplier	solder alloy	other	/		0.000	mg	95	2