



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2021-02-12
<b>Company Unique ID</b>	NL 008751171B01	<b>Contact Name *</b>	Refer to Supplier Comment section
<b>Contact Name *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	Floriana SAN BIAGIO	<b>Representative Title</b>	AMS Material Declaration champion
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**Uncertainty Statement**


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Legal Statement		
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>
		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
	9EW4*MV5WAB6	A	999L	2021-02-12
Amount	UoM	Unit type	ST ECOPACK Grade	
78	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, annealed	Copper Alloy	,	

Package Designator	Package Size	Nbr of instances	Shape	
DSO	4.85 x 3.9	10	Gull wing	
Comment	W4 SSOP 10L 3.9 BODY 1 PITCH; MDF is valid for VIPER012LSTR			

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 18th December 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	0.03	die	346

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-19th January 2021				
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
	Application Purpose

China GB 33372-2020 Limit standard for volatile organic compounds content in adhesives - 4 March 2020 application date 1st December 2020	
Query	Response
The product contains adhesives identified under GB 33372	false

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	9EW4*MV5WAB6		77.9098		600002.0	998842.0				
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	2.910	mg	supplier	die	Silicon(Si)	7440-21-3		2.737	mg	940550	35090				
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.030	mg	10309	385				
				supplier	metallisation	Chromium(Cr)	7440-47-3		0.001	mg	344	13				
				supplier	metallisation	Copper(Cu)	7440-50-8		0.065	mg	22337	833				
				supplier	metallisation	Gold(Au)	7440-57-5		0.004	mg	1375	51				
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.027	mg	9278	346				
				supplier	metallisation	Palladium(Pd)	7440-05-3		0.003	mg	1031	38				
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.001	mg	344	13				
				supplier	metallisation	Tungsten(W)	7440-33-7		0.004	mg	1375	51				
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.009	mg	3093	115				
				supplier	passivation	Silicon oxide	7631-86-9		0.029	mg	9966	372				
				Leadframe	M-004 Copper and its alloys	30.300	mg	supplier	alloy	Copper (Cu)	7440-50-8		28.268	mg	932937	362410
								supplier	alloy	Iron(Fe)	7439-89-6		0.758	mg	25017	9718
supplier	alloy	Phosphorus (P)	7723-14-0						0.030	mg	990	385				
supplier	alloy	Zinc (Zn)	7440-66-6						0.030	mg	990	385				
SVHC	alloy	Lead (Pb)	7439-92-1						0.002	mg	66	26				
supplier	metallization	Silver (Ag)	7440-22-4						1.212	mg	40000	15538				
Die attach	M-015 Other organic materials	1.000	mg	supplier	glue	Silver (Ag)	7440-22-4		0.800	mg	800000	10256				
				supplier	glue	Acrylate monomer	61434-04-6		0.139	mg	139000	1782				
				supplier	glue	Acrylate oligomer	proprietary		0.050	mg	50000	641				
				supplier	glue	Resin	proprietary		0.010	mg	10000	128				
				supplier	glue	Epoxy resin	proprietary		0.001	mg	1000	13				
				supplier	wire	Copper (Cu)	7440-50-8		0.679	mg	970000	8705				
Bonding wires	M-004 Copper and its alloys	0.700	mg	supplier	wire	Palladium (Pd)	7440-05-3		0.021	mg	30000	269				
				supplier	wire	Palladium (Pd)	7440-05-3		0.021	mg	30000	269				
Encapsulation	M-015 Other organic materials	41.000	mg	supplier	mold compound	Epoxy Resin 1	proprietary		0.246	mg	6000	3154				
				supplier	mold compound	Epoxy Resin 2	proprietary		0.246	mg	6000	3154				
				supplier	mold compound	Epoxy Resin 3	proprietary		0.246	mg	6000	3154				
				supplier	mold compound	Phenol Resin	proprietary		0.902	mg	22000	11564				
				supplier	mold compound	Carbon black	1333-86-4		0.041	mg	1000	526				
				supplier	mold compound	Amorphous silica	60676-86-0		38.335	mg	935000	491474				
Connections coating	Solder	2.000	mg	supplier	mold compound	Crystal silica	14808-60-7		0.984	mg	24000	12615				
				supplier	solder alloy	Tin (Sn)	7440-31-5		2.000	mg	1000000	25638				