



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-01-11
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 *	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
	9MW4*MT24AA6	A	Z9LA	2018-01-11
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	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	4.85x3.9x1.52	10	gull wing	
Comment	Package: W4 SSOP 10L 3.9 BODY 1 PITCH; MDF valid for VIPER06LSTR-VIPER06LS			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 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 : REACH-7th July 2017				
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

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	9MW4*MT24AA6				6000000.0	1000035.0				
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)				
Dies	M-011 Other inorganic materials	3.208	mg	supplier	die	Silicon (Si)	7440-21-3		3.098	mg	965711	38247				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.036	mg	11222	444				
				supplier	metallization	Tungsten (W)	7440-33-7		0.007	mg	2182	86				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.011	mg	3429	136				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.030	mg	9352	370				
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	312	12				
				supplier	back side metallization	Gold (Au)	7440-57-5		0.003	mg	935	37				
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.013	mg	4052	160				
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.009	mg	2805	111				
				Leadframe	M-004 Copper and its alloys	32.983	mg	supplier	alloy	Copper (Cu)	7440-50-8		30.771	mg	932935	379889
supplier	alloy	Iron (Fe)	7439-89-6						0.825	mg	25013	10185				
supplier	alloy	Phosphorus (P)	7723-14-0						0.033	mg	1001	407				
supplier	alloy	Zinc (Zn)	7440-66-6						0.033	mg	1001	407				
	JIG - R	alloy	Lead (Pb)					7439-92-1		0.002	mg	61	25			
supplier	metallization	Silver (Ag)	7440-22-4						1.319	mg	39990	16284				
supplier	glue	Silver (Ag)	7440-22-4						1.376	mg	794916	16988				
Die Attach	M-015 Other organic materials	1.731	mg	supplier	glue	Acrylate monomer	61434-04-6		0.173	mg	99942	2136				
				supplier	glue	Proprietary	Proprietary		0.121	mg	69902	1494				
				supplier	glue	Bismaleimide resin	35325-39-4		0.052	mg	30040	642				
				supplier	glue	Epoxy resin	26875-67-2		0.009	mg	5199	111				
				supplier	wire	Gold (Au)	7440-57-5		1.058	mg	1000000	13062				
Bonding wires	M-008 Precious metals	1.058	mg	supplier	wire	Gold (Au)	7440-57-5		1.058	mg	1000000	13062				
				Encapsulation	M-015 Other organic materials	39.619	mg	supplier	mold compound	Epoxy Resin 1	29690-82-2		1.189	mg	30011	14679
								supplier	mold compound	Epoxy Resin 2	Proprietary		1.189	mg	30011	14679
								supplier	mold compound	Epoxy Resin 3	Proprietary		1.189	mg	30011	14679
								supplier	mold compound	Phenol Resin	26338-61-4		1.189	mg	30011	14679
								supplier	mold compound	Carbon black	1333-86-4		0.079	mg	1994	975
								supplier	mold compound	Amorphous silica	60676-86-0		33.992	mg	857972	419654
connections coating	Solder	2.404	mg	supplier	mold compound	Crystal silica	14808-60-7		0.792	mg	19990	9778				
				supplier	solder alloy	Tin (Sn)	7440-31-5		2.404	mg	1000000	29679				