



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 *	2018-05-16
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
	19EH*VP09AA5	A	MU1A	2018-05-16
	Amount	UoM	Unit type	ST ECOPACK Grade
	480	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	250	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	10.3x7.5x2.28	36	gull wing	
Comment	EH PowerSSO36; MDF valdi for VNI8200XP-32			

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	FALSE
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)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : REACH-15th January 2018				
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
-	-			0
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
-	-	0.00		

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	19EH*VP09AAS				6000001.0	1000004.0
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	17.896	mg	supplier	die	Silicon (Si)	7440-21-3		16.351	mg	913668	34065
				supplier	metallization	Aluminium (Al)	7429-90-5		0.271	mg	15143	565
				supplier	metallization	Copper (Cu)	7440-50-8		0.112	mg	6258	233
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	56	2
				supplier	metallization	Titanium (Ti)	7440-32-6		0.028	mg	1565	58
				supplier	metallization	Tungsten (W)	7440-33-7		0.484	mg	27045	1008
				supplier	Passivation	Silicon Nitride	12033-89-5		0.046	mg	2570	96
				supplier	Passivation	Silicon Oxide	7631-86-9		0.259	mg	14473	540
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.008	mg	447	17
				supplier	back side metallization	Gold (Au)	7440-57-5		0.024	mg	1341	50
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.112	mg	6258	233
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.200	mg	11176	417
				Leadframe	M-004 Copper and its alloys	195.544	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						4.157	mg	21259	8660
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.250	mg	1278	521
supplier	alloy	Zinc (Zn)	7440-66-6						0.218	mg	1115	454
supplier	metallization	Silver (Ag)	7440-22-4						14.163	mg	72429	29506
Soft solder	Solder	14.161	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	13.807	mg	975002	28765
				supplier	solder	Silver (Ag)	7440-22-4		0.212	mg	14971	442
				supplier	solder	Tin (Sn)	7440-31-5		0.142	mg	10028	296
Bonding wires	M-008 Precious metals	2.046	mg	supplier	wire	Gold (Au)	7440-57-5		2.046	mg	1000000	4263
Encapsulation	M-011 Other inorganic materials	248.243	mg	supplier	mold compound	silica vitreous	60676-86-0		219.694	mg	884996	457696
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		13.157	mg	53000	27410
				supplier	mold compound	Phenol Resin	205830-20-2		9.930	mg	40001	20688
				supplier	mold compound	epoxy resin	Proprietary		4.965	mg	20001	10344
				supplier	mold compound	carbon black	1333-86-4		0.497	mg	2002	1035
connections coating	Solder	2.111	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.111	mg	1000000	4398