



## 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>	2018-11-21
<b>Company Unique ID</b>	NL 008751171B01		
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	Giovanni Giacopello	<b>Representative Title</b>	ADG MD 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
ESDCAN03-2BWY	HJW9*TAY03VC	A	Z55A	2018-11-21
	Amount	UoM	Unit type	ST ECOPACK Grade
	6.600	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
1	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte	Alloy 42		

Package Designator	Size	Nbr of instances	Shape	
DSO	2 - 1.26 - 0.93	3	gull wing	
Comment	SOT 323 - 3 LEADS			

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 25th May 2018			
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	0.77	Leadframe	116515

QueryList : REACH-27th June 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
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	HW9*TAY03VC					
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	0.225	mg	supplier	die	Silicon (Si)	7440-21-3		0.210	mg	933333	31818
				supplier	metallization	Aluminium (Al)	7429-90-5		0.008	mg	35556	1212
				supplier	metallization	Copper (Cu)	7440-50-8		0.002	mg	8889	303
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	4444	152
				supplier	Passivation	Silicon Oxide	7631-86-9		0.004	mg	17778	606
Leadframe	M-004 Copper and its alloys	1.869	mg	supplier	alloy	Iron (Fe)	7439-89-6		1.079	mg	577314	163485
				supplier	alloy	Nickel (Ni)	7440-02-0		0.769	mg	411450	116515
				supplier	alloy	Silicon (Si)	7440-21-3		0.002	mg	1070	303
				supplier	alloy	Cobalt (Co)	7440-48-4		0.009	mg	4816	1364
				supplier	alloy	Manganese (Mn)	7439-96-5		0.010	mg	5350	1515
Die attach	M-011 Other inorganic materials	0.081	mg	supplier	glue	Epoxyde Bisphenol A Resin	25068-38-6		0.007	mg	86420	1061
				supplier	glue	Silica, vitreous	60676-86-0		0.006	mg	74074	909
				supplier	glue	Ethoxyethoxy-ethyl Acetate	112-15-2		0.018	mg	222222	2727
				supplier	glue	Aluminium oxide	1344-28-1		0.035	mg	432099	5303
				supplier	glue	Bisphenol A diglycidyl ether polymer	25036-25-3		0.013	mg	160494	1970
Bonding wires	M-004 Copper and its alloys	0.058	mg	supplier	wire	Diaminodiphenylsulfone	80-08-0		0.002	mg	24691	303
				supplier	wire	Copper (Cu)	7440-50-8		0.057	mg	982759	8636
				supplier	wire	Palladium (Pd)	7440-05-3		0.001	mg	17241	152
Encapsulation	M-011 Other inorganic materials	4.113	mg	supplier	mold compound	phenolic resin	26834-02-6		0.098	mg	23827	14848
				supplier	mold compound	epoxy resin	39690-82-2		0.098	mg	23827	14848
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.146	mg	35497	22121
				supplier	mold compound	Silica	60676-86-0		3.755	mg	912959	568939
				supplier	mold compound	Carbon Black	1333-86-4		0.007	mg	1702	1061
connections coating	Solder	0.254	mg	supplier	mold compound	Tetrakis(2,6-dimethylphenyl) 1,3-phenylene bis	139189-30-3		0.009	mg	2188	1364
				supplier	solder alloy	Tin (Sn)	7440-31-5		0.254	mg	1000000	38485