



## 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>

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2016-01-14
<b>Contact Name *</b>	Refer to "Supplier Comment" section	<b>Contact Title</b>	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 Giacobello	<b>Representative Title</b>	IPD Materials 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/internet/com/support/online_tech_support.jsp">http://www.st.com/internet/com/support/online_tech_support.jsp</a>		

**Uncertainty Statement**


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<b>Legal Statement</b>			
<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
LD39015M25R	HVVV*UM73AA5	A	ZS1A	2016-01-14
Amount	UoM	Unit type	ST ECOPACK Grade	
17.10	mg	Each	ECOPACK® 2	

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 ; if coating is used	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	2.8 - 1.5 - 0.9	5	gull wing	
Comment	Package: SOT 23 5L			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList : REACH-17th December 2015				
Query				Response
The product 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						Mfr Item Name	HVWV*UM73AA5					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	0.349	mg	supplier	die	Silicon (Si)	7440-21-3		0.33	mg	945559	19298
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.004	mg	11461	234
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	8596	175
die (s)				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	2865	58
die (s)				supplier	Passivation	Silicon Oxide	7631-86-9		0.007	mg	20057	409
die (s)				supplier	polymer die coating	PIXI Gamma-butyrolactone	96-48-0		0.004	mg	11461	234
Leadframe	Copper & its alloys	7.427	mg	supplier	alloy	Copper (Cu)	7440-50-8		7.155	mg	963377	418421
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.167	mg	22486	9766
Leadframe				supplier	alloy	Phosphorus (P)	12185-10-3		0.002	mg	269	117
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.009	mg	1212	526
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.086	mg	11579	5029
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.007	mg	943	409
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	135	58
Die attach	Other Organic Materials	0.071	mg	supplier	glue	Silver (Ag)	7440-22-4		0.049	mg	690141	2865
Die attach				supplier	glue	methylene diacrylate	42594-17-2		0.018	mg	253521	1053
Die attach				supplier	glue	Dicyclopentenylxyethyl methacrylate	68586-19-6		0.002	mg	28169	117
Die attach				supplier	glue	Polymer of Polybutadiene + Anhydride	Proprietary		0.002	mg	28169	117
Bonding wire	Precious metals	0.155	mg	supplier	wire	Gold (Au)	7440-57-5		0.155	mg	1000000	9064
Encapsulation	Other Organic Materials	9.098	mg	supplier	molding compound	Silica, vitreous	60676-86-0		7.76	mg	852935	453801
Encapsulation				supplier	molding compound	phenolic resin	Proprietary		0.318	mg	34953	18596
Encapsulation				supplier	molding compound	epoxy resin	Proprietary		0.364	mg	40009	21287
Encapsulation				supplier	molding compound	Biphenyl epoxy resin	85954-11-6		0.182	mg	20004	10643
Encapsulation				supplier	molding compound	carbon black	1333-86-4		0.019	mg	2088	1111
Encapsulation				supplier	molding compound	Zinc hydroxide	20427-58-1		0.091	mg	10002	5322
Encapsulation				supplier	molding compound	Magnesium hydroxide	1309-42-8		0.364	mg	40009	21287