



## 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>	2015-08-07
<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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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
	HJW3*NHBAR28	A	Z55A	2015-08-07
Amount	UoM	Unit type	ST ECOPACK Grade	
5.00	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 c	Tin (Sn), matte	Alloy 42		

Package Designator	Size	Nbr of instances	Shape	
DSO	1.682 - 1.247 - 1.059	2	gull wing	
Comment	Package: SOD 323; MDF valid for BAS70JFILM			

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-15th June 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	HIW3*NHBR28					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Silicon die	Other inorganic materials	0.132	mg	supplier	die	Silicon (Si)	7440-21-3		0.122	mg	924242	24400
Silicon die				supplier	metallization	Aluminum (Al)	7429-90-5		0.006	mg	45455	1200
Silicon die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.001	mg	7576	200
Silicon die				supplier	back side metallization	Gold (Au)	7440-57-5		0.003	mg	22727	600
Leadframe	Other Ferrous alloys, non-stainless ste	1.294	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.718	mg	554869	143600
Leadframe				supplier	alloy	Nickel (Ni)	7440-02-0		0.511	mg	394900	102200
Leadframe				supplier	alloy	Manganese (Mn)	7439-96-5		0.008	mg	6182	1600
Leadframe				supplier	alloy	Cobalt (Co)	7440-48-4		0.006	mg	4637	1200
Leadframe				supplier	alloy	Silicon (Si)	7440-21-3		0.002	mg	1546	400
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		0.049	mg	37867	9800
Bonding wire	Precious metals	0.023	mg	supplier	wire	Gold (Au)	7440-57-5		0.023	mg	1000000	4600
encapsulation	Other inorganic materials	3.401	mg	supplier	mold compound	silica vitreous	60676-86-0		2.901	mg	852984	580200
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		0.187	mg	54984	37400
encapsulation				supplier	mold compound	Phenol Resin	26834-02-6		0.17	mg	49985	34000
encapsulation				supplier	mold compound	Tetrakis(2,6-dimethylphenyl) 1,3-phenylene bi	139189-30-3		0.085	mg	24993	17000
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.007	mg	2058	1400
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.051	mg	14996	10200
connections coating	Solder	0.15	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.15	mg	1000000	30000