



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 *	2015-08-19
Contact Name *	Refer to "Supplier Comment" section	Contact Title	Refer to "Supplier Comment" section
Contact Phone *	Refer to "Supplier Comment" section	Contact Email *	Refer to "Supplier Comment" section
Authorized Representative *	Giovanni Giacopello	Representative Title	IPD Materials Declaration 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/internet/com/support/online_tech_support.jsp		

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
	TSLZ*MSA76WS	A	Z4LA	2015-08-19
Amount	UoM	Unit type	ST ECOPACK Grade	
5200.00	mg	Each	ECOPACK® 1	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
NAC	NAC	NAC		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used c	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	15.5X14.5X5.7	3	Through-hole	
Comment	Package:TO-3PF/ISOWATT 218; MDF valid for STFW3N150			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	false
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)	true
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
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

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	TSLZ*MSA76WS						
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	19.641	mg	supplier	die	Silicon (Si)	7440-21-3		18.879	mg	961204	3631	
Silicon die				supplier	metallization	Aluminium (Al)	7429-90-5		0.375	mg	19093	72	
Silicon die				supplier	passivation	Silicon Nitride (SiN)	12033-89-5		0.089	mg	4531	17	
Die Attach				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.133	mg	6772	26	
Die Attach				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.009	mg	458	2	
Silicon die				supplier	back side metallization	Gold (Au)	7440-57-5		0.027	mg	1375	5	
Silicon die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.129	mg	6568	25	
Leadframe	Copper & its alloys	2355.205	mg	supplier	alloy	Copper (Cu)	7440-50-8		2341.957	mg	19159	12	
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		2.5	mg	1545	1	
Leadframe				supplier	alloy	Phosphorus (P)	12185-10-3		9.998	mg	7726	5	
Leadframe				supplier	alloy	Nickel (Ni)	7440-02-0		0.75	mg	994375	465487	
Soft solder	Solder	18.738	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	17.519	mg	1062	497	
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.281	mg	4245	1987	
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.938	mg	318	149	
Bonding wire	Other inorganic materials	1.92	mg	supplier	Bonding wire	Aluminium (Al)	7429-90-5		1.92	mg	935037	3482	
Encapsulation	Other inorganic materials	2792.886	mg	supplier	Molding Compound	Crystalline Silica	14808-60-7		2113.287	mg	14975	56	
Encapsulation				supplier	Molding Compound	Epoxy Cresol Novolak	29690-82-2		357.006	mg	49987	186	
Encapsulation				supplier	Molding Compound	Phenol Resin	9003-35-4		198.337	mg	1000000	382	
Encapsulation				supplier	Molding Compound	Antimony-trioxide	1309-64-4		56.668	mg	756667	420037	
Encapsulation				JIG I	Molding Compound	Brominated epoxy resin	68541-56-0		56.255	mg	127827	70959	
Encapsulation				supplier	Molding Compound	Carbon black	1333-86-4		11.333	mg	71015	39422	
connections coating	Solder	11.61	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		11.61	mg	20290	11263	