



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 *	2018-05-14
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 *	Floriana SAN BIAGIO	Representative Title	AMS 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
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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
STA516B13TR	A9ZS*UN23BB6	A	MU1A	2018-05-14
	Amount	UoM	Unit type	ST ECOPACK Grade
	1925.00	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
3	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	15.8x15.5x3.27	36	gull wing	
Comment	PowerSO 36 .43 SLUG UP			

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
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
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	A92S*UN238B6					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die	Other inorganic materials	22.378	mg	supplier	die	Silicon (Si)	7440-21-3		21.478	mg	959782	11157
die				supplier	metallization	Aluminium (Al)	7429-90-5		0.142	mg	6346	74
die				supplier	metallization	Tungsten (W)	7440-33-7		0.224	mg	10010	116
die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.034	mg	1519	18
die				supplier	passivation	Silicon Oxide (SiO2)	7631-86-9		0.331	mg	14791	172
die				supplier	passivation	Gamma-butyrolactone	96-48-0		0.094	mg	4201	49
die				supplier	passivation	Polyhydroxyamide	55295-98-2		0.042	mg	1877	22
die				supplier	passivation	Alcoxysilane	proprietary		0.003	mg	134	2
die				supplier	passivation	Aryl Siliclic Acid	proprietary		0.001	mg	45	1
die				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.001	mg	45	1
die				supplier	back side metallization	Gold (Au)	7440-57-5		0.003	mg	134	2
die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.011	mg	492	6
die				supplier	glass coating	Glass: Silicon Dioxide (SiO2)	7631-86-9		0.014	mg	626	7
Leadframe	Leadframe	108.822	mg	supplier	Alloy	Copper (Cu)	7440-50-8		105.525	mg	969703	54818
Leadframe				supplier	Coating	CopperPosphorous (CuP)	12517-41-8		0.212	mg	1948	110
Leadframe				supplier	Coating	Cobalt (Co)	7440-48-4		0.297	mg	2729	154
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		2.788	mg	25620	1448
Soft solder	Solder	12.954	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a. Lead in high me	12.63	mg	974988	6561
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.194	mg	14976	101
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.13	mg	10036	68
Bonding wire	Other inorganic materials	3.196	mg	supplier	wire	Copper (Cu)	7440-50-8		1.522	mg	1000000	791
encapsulation	Encapsulation	1771.874	mg	supplier	mold compound	Phenol Resin	205830-20-2		70.875	mg	40000	36818
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		53.156	mg	30000	27614
encapsulation				supplier	mold compound	epoxy resin	29690-82-2		53.156	mg	30000	27614
encapsulation				supplier	mold compound	carbon black	1333-86-4		3.544	mg	2000	1841
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		1591.143	mg	898000	826568
connections coating	Finishing	7.45	mg	supplier	Connection coating	Tin (Sn)	7440-31-5		7.45	mg	1000000	3870