


Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32F091CCU7	S2MI*442XXXA	A	998Z	26-07-2017
	Amount	UoM	Unit type	ST ECOPACK Grade
	97.48	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
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable; if coating is used or other bulk termination	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	7X7X0.55	48	No lead	
Comment	Package : A0B9 UFQFPN 7X7X0.55 48L 0.5 MM PITCH 8202210			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 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 : REACH-12th January 2017				
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

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	SZMI*442XXXA				6000000.0	0.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or dies	M-011 Other inorganic materials	4.742	mg	supplier	die	Silicon (Si)	7440-21-3		4.279	mg	902362	43898
				supplier	metallization	Aluminium (Al)	7429-90-5		0.031	mg	6537	318
				supplier	metallization	Copper (Cu)	7440-50-8		0.157	mg	33108	1611
				supplier	metallization	Cobalt (Co)	7440-48-4		0.029	mg	6116	298
				supplier	metallization	Titanium (Ti)	7440-32-6		0.009	mg	1898	92
				supplier	metallization	Tungsten (W)	7440-33-7		0.017	mg	3585	174
				supplier	Passivation	Silicon Nitride	12033-89-5		0.021	mg	4429	215
				supplier	Passivation	Silicon Oxide	7631-86-9		0.199	mg	41965	2042
				Supplier	Metals	Silver	7440-22-4		0.327	mg	704535	3353
				Supplier	Plastics/polymers	Bisphenol-F, epoxy resin	9003-36-5		0.022	mg	48437	230
Die Attach Material_ABLEBOND 8290	M-011 Other inorganic materials	0.464	mg	Supplier	Polymers	Fatty acids, polymers with epichlorohydrin	68475-94-5		0.022	mg	48437	230
				Supplier	Organic Compounds	Gamma Butyrolactone	96-48-0		0.022	mg	48437	230
				Supplier	Epoxy Resin	Epoxy Resin Proprietary	Proprietary		0.022	mg	48437	230
				Supplier	Amines	Poly(Oxy(methyl-1, 2-ethanediyl))	9046-10-0		0.022	mg	48437	230
				Supplier	Metallic compounds	Copper Oxide	1317-38-0		0.022	mg	48437	230
				Supplier	Organic Compounds	1,4-Bis(2,3-epoxypropoxy) butane	2425-79-8		0.002	mg	4844	23
				Supplier	Epoxy Resin	Epoxy Resin A	Proprietary		0.723	mg	19837	7414
				Supplier	Epoxy Resin	Epoxy Resin B	Proprietary		0.723	mg	19837	7414
				Supplier	Phenol Resin	Phenol Resin A	Proprietary		0.723	mg	19837	7414
				Supplier	Phenol Resin	Phenol Resin B	Proprietary		0.723	mg	19837	7414
Mold Compound_EME-G770_Sumitor	M-011 Other inorganic materials	34.322	mg	Supplier	Glass	Silica (Amorphous) A	60676-86-0		24.575	mg	732452	-747890
				Supplier	Glass	Silica (Amorphous) B	7631-86-9		5.930	mg	162767	60832
				Supplier	Metallic compounds	Metal Hydroxide	Proprietary		0.723	mg	19837	7414
				Supplier	Additives	Carbon Black	1333-86-4		0.204	mg	5595	2091
				Supplier	Metals	Silver	7440-22-4		0.363	mg	960000	3726
				Supplier	Metals	Others	Proprietary		0.015	mg	40000	155
				Supplier	Metals	Tin	7440-31-5		3.693	mg	1000000	37883
				Supplier	Metals	Nickel	7440-02-0		1.582	mg	29365	16231
				Supplier	Glass	Silicon	7440-21-3		0.350	mg	6500	3593
				Supplier	Metals	Magnesium	7439-95-4		0.084	mg	1565	865
Bonding wire_WIRE AG 0.8MIL SI TYP	Bonding Wire	0.378	mg	Supplier	Metals	Silver	7440-22-4		3.394	mg	63000	34822
				Supplier	Metals	Copper	7440-50-8		48.467	mg	899570	497217
				Supplier	Metals	Others	Proprietary		0.015	mg	40000	155
Anode Ball_Pure Tin_Nuonengda	M-011 Other inorganic materials	3.693	mg	Supplier	Metals	Tin	7440-31-5		3.693	mg	1000000	37883
Lead frame_C7+Ag_HDS	Copper & its alloys	53.878	mg	Supplier	Metals	Nickel	7440-02-0		1.582	mg	29365	16231
				Supplier	Glass	Silicon	7440-21-3		0.350	mg	6500	3593
				Supplier	Metals	Magnesium	7439-95-4		0.084	mg	1565	865
				Supplier	Metals	Silver	7440-22-4		3.394	mg	63000	34822
				Supplier	Metals	Copper	7440-50-8		48.467	mg	899570	497217