




Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32L151QCH6	P1PG*436XXX	A	9996	29-11-2017
	Amount	UoM	Unit type	ST ECOPACK Grade
	70.78	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	
SOLDERBALL (Sn96.5Ag3.5)	NAC	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
BGA	7,7,0.6	132	No lead	
Comment	Package : A0G8 UFBGA 7X7X0.6 132L P 0.5 R 12X12 8298393			

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 :						Mfr Item Name	P1PG*436XXX				7000000.0	1000000.0				
note : Substance present with less 0.001mg will not be declared in this document																
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	4.582	mg	supplier	die	Silicon (Si)	7440-21-3		3.953	mg	862724	55849				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.055	mg	12003	777				
				supplier	metallization	Copper (Cu)	7440-50-8		0.182	mg	39721	2571				
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.021	mg	4583	297				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.027	mg	5893	381				
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	218	14				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.049	mg	10694	692				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.294	mg	64164	4154				
				SILICON DIE	M-011 Other inorganic materials	3.722	mg	supplier	DIE	Silicon (Si)	7440-21-3		3.722	mg	1000000	52583
				SUBSTRATE (DS7409HGB)	M-011 Other inorganic materials	33.938	mg	supplier	CORE	Glass Cloth	65997-17-3		1.958	mg	57700	27667
supplier	CORE	Epoxy resin	61788-97-4						0.353	mg	10400	4987				
supplier	CORE	Flame resistant epoxy resin	223769-10-6						0.312	mg	9200	4411				
supplier	CORE	Heat resistant resin	25722-66-1						0.312	mg	9200	4411				
supplier	CORE	Silica filler	7631-86-9						0.743	mg	21900	10501				
supplier	CORE	Metal Hydroxide	Proprietary						0.587	mg	17300	8295				
supplier	CORE	Copper foil	7440-50-8						3.563	mg	105000	50347				
supplier	SOLDERMASK (AUS308)	Talc containing no asbestiform fibers	14807-96-6						0.278	mg	8200	3932				
supplier	SOLDERMASK (AUS308)	Barium sulfate	7727-43-7						4.656	mg	137200	65787				
supplier	SOLDERMASK (AUS308)	Dipropylene glycol monomethyl ether	34590-94-8						1.877	mg	55300	26516				
supplier	SOLDERMASK (AUS308)	Napthalene	91-20-3		0.713	mg	21000	10069								
supplier	SOLDERMASK (AUS308)	Morpholine derivative	Proprietary		0.781	mg	23000	11028								
supplier	CU PLATING	Copper (Cu)	7440-50-8		12.075	mg	355800	170604								
supplier	NI PLATING	Nickel (Ni)	7440-02-0		5.002	mg	147400	70678								
supplier	AU PLATING	Gold (Au)	7440-57-5		0.726	mg	21400	10261								
DIE ATTACH (ATB-130U)	M-011 Other inorganic materials	0.527	mg	supplier	GLUE	Butadiene,acrylonitrile polymer,carboxy-termi	68610-41-3		0.369	mg	700000	5213				
				supplier	GLUE	Phenol-formaldehyde polymer	9003-35-4		0.053	mg	100000	745				
				supplier	GLUE	Phenol polymer with formaldehyde,glycidyl et	28064-14-4		0.048	mg	92000	685				
				supplier	GLUE	Dapsone	80-08-0		0.051	mg	97000	722				
				supplier	GLUE	Reaction product bisphenol-A-(epichlorhydrin	25068-38-6		0.005	mg	10000	74				
supplier	GLUE	4,4, Isopropylidenediphenol	80-05-7		0.001	mg	1000	8								
BONDING WIRE (MKE 4N)	M-011 Other inorganic materials	0.913	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		0.913	mg	1000000	12904				
SOLDERBALL (Sn96.5Ag3.5)	M-011 Other inorganic materials	4.099	mg	supplier	SOLDERBALL	Tin (Sn)	7440-31-5		3.955	mg	965000	55883				
				supplier	SOLDERBALL	Silver (Ag)	7440-22-4		0.144	mg	35000	2027				
ENCAPSULATION (GE-100LFC5)	M-011 Other inorganic materials	22.999	mg	supplier	MOLDING COMPOUND	Silica fused (SiO2)	60676-86-0		20.241	mg	900000	285961				
				supplier	MOLDING COMPOUND	Epoxy resin	Proprietary		1.241	mg	45000	17535				
				supplier	MOLDING COMPOUND	Phenol resin	Proprietary		1.103	mg	40000	15586				
				supplier	MOLDING COMPOUND	Metal Hydroxide	Proprietary		0.276	mg	10000	3897				
supplier	MOLDING COMPOUND	Carbon black	1333-86-4		0.138	mg	5000	1948								