

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32F051K8T7	S55V*440XXXB	A	998Z	27-07-2017
	Amount	UoM	Unit type	ST ECOPACK Grade
	197.06	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	
QFP	7x7X1.4	#REF!	L Bend	
Comment	Package : 5V LQFP 32 7x7x1.4 1 0060661			

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	S55V*440XXB				7000000.0	1000000.0
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	6.974	mg	supplier	die	Silicon (Si)	7440-21-3		6.689	mg	959134	33945
				supplier	metallization	Aluminium (Al)	7429-90-5		0.019	mg	2724	96
				supplier	metallization	Copper (Cu)	7440-50-8		0.097	mg	13909	492
				supplier	metallization	Cobalt (Co)	7440-48-4		0.018	mg	2581	91
				supplier	metallization	Titanium (Ti)	7440-32-6		0.005	mg	717	25
				supplier	metallization	Tungsten (W)	7440-33-7		0.011	mg	1577	56
				supplier	Passivation	Silicon Nitride	12033-89-5		0.013	mg	1864	66
Die Attach Epoxy_ABLEBOND 3230_H	M-011 Other inorganic materials	0.896	mg	Supplier	Metals	Silicon Oxide	7631-86-9		0.122	mg	17494	619
				Supplier	Plastics/polymers	Silver	7440-22-4		0.807	mg	901000	4095
				Supplier	Plastics/polymers	Highly cross-linked polymer	Proprietary		0.089	mg	99000	450
Silicon Die	M-011 Other inorganic materials	6.689	mg	Supplier	Glass	Silicon	7440-21-3		6.689	mg	1000000	33945
Mold Compound_EME-G631SHQ_Sur	M-011 Other inorganic materials	111.495	mg	Supplier	Plastics/polymers	Epoxy Resin A	Proprietary		2.488	mg	21000	12625
				Supplier	Plastics/polymers	Epoxy Resin B	Proprietary		2.488	mg	21000	12625
				Supplier	Plastics/polymers	Phenol Resin	Proprietary		6.634	mg	56000	33667
				Supplier	Glass	Silica(Amorphous)A	60676-86-0		85.485	mg	780450	433812
				Supplier	Glass	Silica(Amorphous)B	7631-86-9		13.662	mg	115320	69330
Wire_AG SI TYPE_MKE	Bonding Wire	0.253	mg	Supplier	Non-metals	Carbon Black	1333-86-4		0.738	mg	6230	3745
				Supplier	Metals	Silver	7440-22-4		0.243	mg	960000	1233
				Supplier	Metals	Others	Proprietary		0.010	mg	40000	51
Plating anode_Pure Tin_Nuo Nengda	M-011 Other inorganic materials	1.209	mg	Supplier	Metals	Tin	7440-31-5		1.209	mg	1000000	6136
Leadframe_C9+Ag_HDS	Copper & its alloys	69.540	mg	Supplier	Metals	Iron	7439-89-6		1.520	mg	21865	7716
				Supplier	Non-metals	Phosphorus	7723-14-0		0.051	mg	730	258
				Supplier	Metals	Zinc	7440-66-6		0.078	mg	1125	397
				Supplier	Metals	Copper	7440-50-8		63.506	mg	913235	322277
				Supplier	Metals	Silver	7440-22-4		4.381	mg	63000	22232
				JIG-R	Metals	Lead	7439-92-1		0.003	mg	45	16