


Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32L412KBT6	S05V*464XXXA	A	998Z	14-09-2018
	Amount	UoM	Unit type	ST ECOPACK Grade
	184.41	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), immersion	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	7X7X1.4	32	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-27th June 2018				
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	S05V*464XXXA				5999999.0	999988.7
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	7.075	mg	supplier	die	Silicon (Si)	7440-21-3		6.801	mg	961272	36879
				supplier	metallization	Aluminium (Al)	7429-90-5		0.013	mg	1837	70
				supplier	metallization	Copper (Cu)	7440-50-8		0.116	mg	16396	629
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.038	mg	5371	206
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	141	5
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	141	5
				supplier	Passivation	Silicon Nitride	12033-89-5		0.030	mg	4240	163
				supplier	Passivation	Silicon Oxide	7631-86-9		0.075	mg	10601	407
				Supplier	Metals	Silver	7440-22-4		0.868	mg	901000	4704
				Supplier	Organic Compound	Highly cross-linked polymer	Proprietary		0.095	mg	99000	517
EMC_G631SHQ_Sumitomo	M-011 Other inorganic materials	118.086	mg	Supplier	Organic Compound	Epoxy Resin A	Proprietary		2.480	mg	21000	13447
				Supplier	Organic Compound	Epoxy Resin B	Proprietary		2.480	mg	21000	13447
				Supplier	Organic Compound	Phenol Resin	Proprietary		6.613	mg	56000	35859
				Supplier	Glass	Silica(Amorphous)A	60676-86-0		92.160	mg	780450	499746
				Supplier	Glass	Silica(Amorphous)B	7631-86-9		13.618	mg	115320	73843
				Supplier	Additives	Carbon Black	1333-86-4		0.736	mg	6230	3989
BondingWire_Ag_MKE	Bonding Wire	0.321	mg	Supplier	Metals	Silver	7440-22-4		0.308	mg	960000	1669
				Supplier	Metals	Others	Proprietary		0.013	mg	40000	70
Anode Ball_Tin_Asahi	Metals	1.961	mg	Supplier	Metals	Tin	7440-31-5		1.961	mg	1000000	10632
Leadframe_C7+Ag_HDS	Metals	56.007	mg	Supplier	Metals	Nickel	7440-02-0		1.645	mg	29365	8918
				Supplier	Glass	Silicon	7440-21-3		0.364	mg	6500	1974
				Supplier	Metals	Magnesium	7439-95-4		0.088	mg	1565	475
				Supplier	Metals	Silver	7440-22-4		3.528	mg	63000	19133
				Supplier	Metals	Copper	7440-50-8		50.382	mg	899570	273202