


Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32L072KZT6	S45V*447XXXZ	A	998Z	2018-03-05
	Amount	UoM	Unit type	ST ECOPACK Grade
	183.56	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	
able; if coating is used or other bulk	Nickel/Palladium/Gold (Ni/Pd/Au)	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-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	S45V*447XXXZ				6000001.0	1000002.8
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	6.674	mg	supplier	die	Silicon (Si)	7440-21-3		6.462	mg	968235	35203
				supplier	metallization	Aluminium (Al)	7429-90-5		0.019	mg	2847	104
				supplier	metallization	Copper (Cu)	7440-50-8		0.062	mg	9290	338
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.007	mg	1049	38
				supplier	metallization	Titanium (Ti)	7440-32-6		0.009	mg	1349	49
				supplier	Passivation	Silicon Nitride	12033-89-5		0.016	mg	2397	87
				supplier	Passivation	Silicon Oxide	7631-86-9		0.099	mg	14834	539
Die Attach Epoxy_ABLEBOND 3230_H	M-011 Other inorganic materials	0.908	mg	Supplier	Metals	Silver	7440-22-4		0.643	mg	707965	3502
				Supplier	Plastics/polymers	2,2'-(Methylenebis(phenyleneoxymethylene))	39817-09-9		0.044	mg	48673	241
				Supplier	Organic Compounds	Dihydro-3-(tetrapropenyl)furan-2,5-dione	26544-38-7		0.044	mg	48673	241
				Supplier	Organic Compounds	Epoxy resin Proprietary	Proprietary		0.044	mg	48673	241
				Supplier	Organic Compounds	Dodecylloxirane	3234-28-4		0.044	mg	48673	241
				Supplier	Organic Compounds	1,3-Isobenzofurandione, hexahydro-5-methyl-	19438-60-9		0.044	mg	48673	241
				Supplier	Organic Compounds	1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8		0.044	mg	48673	241
EMC_G631SHQ_Sumitomo	M-011 Other inorganic materials	118.466	mg	Supplier	Organic Compounds	Epoxy Resin A	Proprietary		2.488	mg	21000	13553
				Supplier	Organic Compounds	Epoxy Resin B	Proprietary		2.488	mg	21000	13553
				Supplier	Organic Compounds	Phenol Resin	Proprietary		6.634	mg	56000	36140
				Supplier	Glass	Silica(Amorphous)A	60676-86-0		92.457	mg	780450	503676
				Supplier	Glass	Silica(Amorphous)B	7631-86-9		13.662	mg	115320	74424
				Supplier	Additives	Carbon Black	1333-86-4		0.738	mg	6230	4021
BondingWire_Ag_MKE	Bonding Wire	0.301	mg	Supplier	Metals	Silver	7440-22-4		0.289	mg	960000	1573
				Supplier	Metals	Others	Proprietary		0.012	mg	40000	66
Anode Ball_Tin_Asahi	Metals	1.209	mg	Supplier	Metals	Tin	7440-31-5		1.209	mg	1000000	6587
Leadframe_C9+Ag_HDS	Metals	56.007	mg	Supplier	Metals	Iron	7439-89-6		1.225	mg	21865	6671
				Supplier	Non-metals	Phosphorus	7723-14-0		0.041	mg	730	223
				Supplier	Metals	Zinc	7440-66-6		0.063	mg	1125	343
				Supplier	Metals	Copper	7440-50-8		51.148	mg	913235	278635
				Supplier	Metals	Silver	7440-22-4		3.528	mg	63000	19222
				JIG-R	Metals	Lead	7439-92-1		0.003	mg	45	14