


Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32F048T6Y6TR	H13P*445CCCA	A	9989	2018-06-07
	Amount	UoM	Unit type	ST ECOPACK Grade
	6.32	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
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Solder ball SACN125 0.23mm	NAC	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
WL CSP	Not Applicable	Nbr of instances	No lead	
Comment	Package : A01N WL CSP 25L P 0.4 MM DIE 444 8539860			

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	H13P*445CCCA				8000000.0	999865.5
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	4.966	mg	supplier	die	Silicon (Si)	7440-21-3		4.747	mg	955900	750528
				supplier	metallization	Aluminium (Al)	7429-90-5		0.015	mg	3021	2372
				supplier	metallization	Copper (Cu)	7440-50-8		0.074	mg	14901	11700
				supplier	metallization	Cobalt (Co)	7440-48-4		0.014	mg	2819	2213
				supplier	metallization	Titanium (Ti)	7440-32-6		0.004	mg	805	632
				supplier	metallization	Tungsten (W)	7440-33-7		0.008	mg	1611	1265
				supplier	Passivation	Silicon Nitride	12033-89-5		0.010	mg	2014	1581
				supplier	Passivation	Silicon Oxide	7631-86-9		0.094	mg	18929	14862
RDL-Ti Target	M-011 Other inorganic materials	0.001	mg	Supplier	Metals	Titanium	7440-32-6		0.001	mg	1000000	182
RDL-Cu Target	M-011 Other inorganic materials	0.005	mg	Supplier	Metals	Copper	7440-50-8		0.005	mg	1000000	721
RDL-Cu Anode	M-011 Other inorganic materials	0.091	mg	Supplier	Metals	Copper	7440-50-8		0.091	mg	1000000	14448
UBM-Ti Target	M-011 Other inorganic materials	0.000	mg	Supplier	Metals	Titanium	7440-32-6		0.000	mg	1000000	74
UBM-Cu Target	M-011 Other inorganic materials	0.002	mg	Supplier	Metals	Copper	7440-50-8		0.002	mg	1000000	294
UBM-Cu Anode	M-011 Other inorganic materials	0.080	mg	Supplier	Metals	Copper	7440-50-8		0.080	mg	1000000	12656
SOLDER BALLS SACN125 0.23mm	Solder	1.179	mg	Supplier	Metals	Tin	7440-31-5		1.146	mg	972569	181226
				Supplier	Metals	Silver	7440-22-4		0.014	mg	11970	2230
				Supplier	Metals	Copper	7440-50-8		0.018	mg	15461	2881