




Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32F103REY6TR	H1CR*414CCCX	A	9989	2019-07-03
	Amount	UoM	Unit type	ST ECOPACK Grade
	23.58	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 SAC405 0.3mm	NAC	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
WL CSP	Not Applicable	Nbr of instances	No lead	
Comment	Package : CR WL CSP 64L R8X8 0.5 mm pitch 8106133			

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	H1CR*414CCCX				8000001.0	999985.4
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	16.596	mg	supplier	die	Silicon (Si)	7440-21-3		15.839	mg	954387	671713
				supplier	metallization	Aluminium (Al)	7429-90-5		0.051	mg	3073	2163
				supplier	metallization	Copper (Cu)	7440-50-8		0.257	mg	15486	10899
				supplier	metallization	Cobalt (Co)	7440-48-4		0.048	mg	2892	2036
				supplier	metallization	Titanium (Ti)	7440-32-6		0.014	mg	844	594
				supplier	metallization	Tungsten (W)	7440-33-7		0.028	mg	1687	1187
				supplier	Passivation	Silicon Nitride	12033-89-5		0.034	mg	2049	1442
				supplier	Passivation	Silicon Oxide	7631-86-9		0.325	mg	19583	13783
PI1 - HD4100	M-011 Other inorganic materials	0.112	mg	Supplier	Plastics/polymers	3,6,9-Trioxaundecamethylene dimethacrylate	109-17-1		0.013	mg	116897	555
				Supplier	Plastics/polymers	Methanol	67-56-1		0.001	mg	10627	50
				Supplier	Plastics/polymers	Polyamic Acid Ester	Proprietary		0.083	mg	743889	3532
				Supplier	Plastics/polymers	2-Hydroxyethyl methacrylate	868-77-9		0.001	mg	11690	55
				Supplier	Plastics/polymers	Aromatic Oxime	Proprietary		0.013	mg	116897	555
PI2 - HD4100	M-011 Other inorganic materials	0.111	mg	Supplier	Plastics/polymers	3,6,9-Trioxaundecamethylene dimethacrylate	109-17-1		0.013	mg	116897	549
				Supplier	Plastics/polymers	Methanol	67-56-1		0.001	mg	10627	50
				Supplier	Plastics/polymers	Polyamic Acid Ester	Proprietary		0.082	mg	743889	3495
				Supplier	Plastics/polymers	2-Hydroxyethyl methacrylate	868-77-9		0.001	mg	11690	55
				Supplier	Plastics/polymers	Aromatic Oxime	Proprietary		0.013	mg	116897	549
RDL-AI/Cu Target	M-011 Other inorganic materials	0.002	mg	Supplier	Metals	Aluminum	7429-90-5		0.001	mg	750000	49
				Supplier	Metals	Copper	7440-50-8		0.000	mg	250000	16
UBM Barrier-NIV	M-011 Other inorganic materials	0.060	mg	Supplier	Metals	Nickel	7440-02-0		0.054	mg	915000	2309
				Supplier	Metals	Vanadium	7440-62-2		0.005	mg	85000	215
UBM/RDL adhesive -Ti Target	M-011 Other inorganic materials	0.001	mg	Supplier	Metals	Titanium	7440-32-6		0.001	mg	1000000	33
UBM-Cu Anode	M-011 Other inorganic materials	0.003	mg	Supplier	Metals	Copper	7440-50-8		0.003	mg	1000000	132
Solder Ball SAC405 0.3mm	Solder	6.695	mg	Supplier	Metals	Tin	7440-31-5		6.454	mg	963978	273739
				Supplier	Metals	Silver	7440-22-4		0.136	mg	20294	5763
				Supplier	Metals	Copper	7440-50-8		0.105	mg	15728	4466