


Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32U545NEY6QTR	T09F*455XXXZ	A	9965	23-02-2023
	Amount	UoM	Unit type	ST ECOPACK Grade
	13.00	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	
Tin/Silver/Copper (SAC405)	NAC	NAC		

Package Designator	Size	Nbr of instances	Shape	
WLCSP	Not applicable	56	No lead	
Comment	Package : B0H4 WLCSP 56L DIE 455 PITCH 0.4 MM DM00780234			

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-10 Jun 2022				
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	T09P*455XXXZ				8000000.0	1000039.9
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	9.153	mg	supplier	die	Silicon (Si)	7440-21-3		8.757	mg	956735	673564
				supplier	metallization	Aluminium (Al)	7429-90-5		0.044	mg	4807	3384
				supplier	metallization	Copper (Cu)	7440-50-8		0.130	mg	14203	9999
				supplier	metallization	Nickel (Ni)	7440-02-0		0.001	mg	109	77
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.022	mg	2404	1692
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	656	462
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	109	77
				supplier	Passivation	Silicon Nitride	12033-89-5		0.031	mg	3387	2384
				supplier	Passivation	Silicon Oxide	7631-86-9		0.161	mg	17590	12384
				Plating Seed layer 1	M-011 Other inorganic materials	0.012	mg	supplier	Alloy	Ti	7440-32-6	
Re-passivatipon layer	M-011 Other inorganic materials	0.116	mg	supplier	Alloy	Cu	7440-50-8		0.010	mg	799037	761
				supplier	Polymer	Gamma - Butyrolactone	96-48-0		0.054	mg	465500	4140
				supplier	Polymer	Polyamic acide ester	Proprietary		0.040	mg	345500	3073
				supplier	Polymer	Dimethyl sulfoxide	67-68-5		0.015	mg	125500	1116
				supplier	Polymer	Methacrylate monomer	Proprietary		0.006	mg	50500	449
Redistribution Layer	M-011 Other inorganic materials	0.297	mg	supplier	Polymer	1,2-Octanedione, 1-[4-(phenylthio)phenyl]-,2-(253585-83-0		0.002	mg	13000	116
				supplier	Alloy	Cu	7440-50-8		0.297	mg	1000000	22815
Plating Seed layer 2	M-011 Other inorganic materials	0.012	mg	supplier	Alloy	Ti	7440-32-6		0.002	mg	200963	191
				supplier	Alloy	Cu	7440-50-8		0.010	mg	799037	761
Re-passivatipon layer	M-011 Other inorganic materials	0.097	mg	supplier	Polymer	Gamma - Butyrolactone	96-48-0		0.045	mg	465500	3457
				supplier	Polymer	Polyamic acide ester	Proprietary		0.033	mg	345500	2566
				supplier	Polymer	Dimethyl sulfoxide	67-68-5		0.012	mg	125500	932
				supplier	Polymer	Methacrylate monomer	Proprietary		0.005	mg	50500	375
				supplier	Polymer	1,2-Octanedione, 1-[4-(phenylthio)phenyl]-,2-(253585-83-0		0.001	mg	13000	97
UBM	M-011 Other inorganic materials	0.202	mg	supplier	Alloy	Cu	7440-50-8		0.202	mg	1000000	15573
Solder ball SAC405	Solder	2.653	mg	supplier	Solder	Sn	7440-31-5		2.534	mg	955000	194899
				supplier	Solder	Ag	7440-22-4		0.106	mg	40000	8163
				supplier	Solder	Cu	7440-50-8		0.013	mg	5000	1020
Back Side Coating LC2850	M-011 Other inorganic materials	0.459	mg	supplier	Polymer	Polybutylene terephthalate (PBT)	25038-59-9		0.298	mg	650000	22958
				supplier	Polymer	Silica	Proprietary		0.090	mg	195000	6887
				supplier	Polymer	Proprietary Material-Other Epoxy resins	Proprietary		0.034	mg	75000	2649
				supplier	Polymer	Proprietary Material-Other Acrylic resins	Proprietary		0.034	mg	75000	2649
				supplier	Polymer	Carbon black	1333-86-4		0.002	mg	5000	177