


Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32F469BET6	45UH*434XXXA	A	9998	2017-04-10
	Amount	UoM	Unit type	ST ECOPACK Grade
	2542.17	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), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	28x28x1.4	208	L Bend	
Comment	Package : UH LQFP 208 28x28x1.4 1.0 7147657			

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- 7th July 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	45UH*434XXXA				7000001.0	0.0
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	20.390	mg	supplier	die	Silicon (Si)	7440-21-3		19.080	mg	935753	7505
				supplier	metallization	Aluminium (Al)	7429-90-5		0.092	mg	4512	36
				supplier	metallization	Copper (Cu)	7440-50-8		0.595	mg	29181	234
				supplier	metallization	Cobalt (Co)	7440-48-4		0.002	mg	98	1
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.083	mg	4071	33
				supplier	metallization	Tungsten (W)	7440-33-7		0.267	mg	13095	105
				supplier	Passivation	Silicon Nitride	12033-89-5		0.070	mg	3433	28
LEADFRAME (LGIC- C194)	M-011 Other inorganic materials	471.813	mg	supplier	Passivation	Silicon Oxide	7631-86-9		0.201	mg	9858	79
				supplier	ALLOY	Copper (Cu)	7440-50-8		459.783	mg	974502	180862
				supplier	ALLOY	Iron (Fe)	7439-89-6		11.323	mg	23999	4454
				supplier	ALLOY	Zinc (Zn)	7440-66-6		0.566	mg	1199	223
LEADFRAME (LGIC- Ag)	M-011 Other inorganic materials	2.250	mg	supplier	ALLOY	Phosphorus (P)	7723-14-0		0.141	mg	299	56
				supplier	COATING	Silver(Ag)	7440-22-4		2.250	mg	1000000	885
DIE ATTACH (Evertech -AP4200)	M-011 Other inorganic materials	2.842	mg	supplier	GLUE	Epoxy	9003-36-5		0.625	mg	219916	246
				supplier	GLUE	Silver(Ag)	7440-22-4		2.217	mg	780084	872
BONDING WIRE (Heraeus - HTS Au w/)	M-011 Other inorganic materials	5.737	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		5.679	mg	989890	2234
				supplier	BONDING WIRE	Palladium (Pd)	7440-05-3		0.058	mg	10110	23
ENCAPSULATION (Sumitomo -G631H)	M-011 Other inorganic materials	2027.788	mg	supplier	MOLDING COMPOUND	Epoxy Resin	Proprietary		206.951	mg	102068	81407
				supplier	MOLDING COMPOUND	Silica fused (SiO3)	60676-86-0		1696.666	mg	836692	-332593
				supplier	MOLDING COMPOUND	Phenol Resin	Proprietary		113.823	mg	56137	44774
				supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		10.348	mg	5104	4071
FINISHING- (ST380 -Sn)	M-011 Other inorganic materials	11.350	mg	supplier	EXTERNAL PLATING	Tin (Sn)	7440-31-5		11.350	mg	1000000	4465