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No	Code	Description in accordance with NSG Guidelines Part 2	GCC HS Code
1	1.A.1.	High-density (lead glass or other) radiation shielding windows	70031200 70031900 70051000 70099200 70169000
2	1.A.2.	Radiation-hardened TV cameras, or lenses therefor hardened to withstand a total radiation dose greater than 5 x 10 <sup>4</sup> Gy (silicon) without operational degradation.	85258010 85258020 85258099 90029000
3	1.A.3.	'Robots', 'end-effectors' and control units	84289000
4	1.A.3.a.	'Robots' or 'end-effectors'	84795000
5	1.A.3.b.	Control units specially designed for any of the 'robots' or 'end-effectors' specified in Item 1.A.3.a.	85371000 85423100 85423900
6	1.A.4.	Remote manipulators that can be used to provide remote actions in radiochemical separation operations or hot cells	84289000
7	1.B.1.a	Flow-forming machines, spin-forming machines capable of flow-forming functions, and mandrels	84622100 84629900 84639000
8	1.B.1.b	Rotor-forming mandrels designed to form cylindrical rotors of inside diameter between 75 and 400 mm.	84661000 84662000 84663000 84669400
9	1.B.2.	Machine tools	85423100 85423200 85423300 85423900
10	1.B.2.a	Machine tools for turning	84571000 84573000 84581100 84589100 84649000 84652000 84659900
11	1.B.2.b	Machine tools for milling	84571000 84572000 84573000 84593100 84595100 84596100 84649000 84652000 84659200

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12	1.B.2.c	Machine tools for grinding	84572000
			84573000
			84601200
			84602200
			80602300
			80602400
			84642000
84659300			
13	1.B.2.d	Electrical Discharge Machines (EDM)	84563000
14	1.B.3.	Dimensional inspection machines, instruments, or systems	
15	1.B.3.a	Computer controlled or numerically controlled coordinate measuring machines	90314990
			90318090
16	1.B.3.b	Linear displacement measuring instruments	90314990
			90318090
17	1.B.3.c	Angular displacement measuring instruments	90314990
			90318090
18	1.B.3.d	Systems for simultaneous linear-angular inspection of hemishells	90314990
			90318090
19	1.B.4.	Controlled atmosphere (vacuum or inert gas) induction furnaces, and power supplies therefor	
20	1.B.4.a	Furnaces	85142000
21	1.B.4.b	Power supplies	85044090
22	1.B.5.a	Isostatic presses	84629900
			84639000
			84774000
			84775900
23	1.B.5.b	Dies, moulds, and controls specially designed for the isostatic presses	84778000
			84669400
			84779000
			85423100
24	1.B.6.a	Electrodynamic vibration test systems	85423200
			85423900
25	1.B.6.b	Digital control units, combined with "software" specially designed for vibration testing	90312000
			90318090
26	1.B.6.c	Vibration thrusters (shaker units), with or without associated amplifiers	85371000
			85372000
			85423100
			85423200
27	1.B.6.d	Test piece support structures and electronic units	85423300
			85423900
			90319090
			85423100
			85423200
			85423300

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			85423900 90312000 90319090
28	1.B.7.a	Arc remelt furnaces, arc melt furnaces and arc melt and casting furnaces	85143000
29	1.B.7.b	Electron beam melting furnaces, plasma atomisation furnaces and plasma melting furnaces	85143000
30	1.B.7.c	Computer control and monitoring systems	85423100
31	1.B.7.d	Plasma torches	85143000
32	1.B.7.e	Electron beam guns	85143000
33	2.A.1.a	Crucibles made of materials resistant to liquid actinide metals	69039000 69091900
34	2.A.1.b	Crucibles made of materials resistant to liquid actinide metals	69039000 81039000
35	2.A.1.c	Crucibles made of materials resistant to liquid actinide metals	69039000 81039000
36	2.A.2.	Platinised catalysts	38151200 71151000 71159000
37	2.A.3.	Composite structures in the form of tubes	68151010 68151090 68159990 70191900 96200090
38	2.B.1.a	Facilities or plants for the production, recovery, extraction, concentration or handling of tritium	84012000
39	2.B.1.b.1	Hydrogen or helium refrigeration units	84012000 84186990 84189910 84196000 84198900 84213900
40	2.B.1.b.2	Hydrogen isotope storage or purification systems using metal hydrides as the storage or purification medium.	84012000 84213900
41	2.B.2.a	Facilities or plants for the separation of lithium isotopes	84012000
42	2.B.2.b.1	Packed liquid-liquid exchange columns specially designed for lithium amalgams	84012000 84798999
43	2.B.2.b.2	Mercury or lithium amalgam pumps;	84135000 84136000 84137000 84138190
44	2.B.2.b.3	Lithium amalgam electrolysis cells	84012000 85433000
45	2.B.2.b.4	Evaporators for concentrated lithium hydroxide solution	84012000

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			84193900 84198900
46	2.B.2.c.	Ion exchange systems specially designed for lithium isotope separation, and specially designed component parts therefor	84012000 84212990
47	2.B.2.d.	Chemical exchange systems (employing crown ethers, cryptands, or lariat ethers) specially designed for lithium isotope separation, and specially designed component parts therefor	84012000 84138190 84212990
48	2.C.1.	Aluminium alloys	76042900 76082000
49	2.C.2.	Beryllium	81121200 81121300 81121900
50	2.C.3.	Bismuth	81060000
51	2.C.4.	Boron enriched in the boron-10 (10B) isotope to greater than its natural isotopic abundance	28045000 28100010 28100020 28459000
52	2.C.5.	Calcium	28051200
53	2.C.6.	Chlorine trifluoride (ClF3).	28121990 28129000
54	2.C.7.a.	Carbon or aramid "fibrous or filamentary materials"	54021100 54021900 54041900 55011000 55031100 55091100 55091200 68151090
55	2.C.7.b.	Glass "fibrous or filamentary materials"	70191100 70191200 70191900
56	2.C.7.c.	Thermoset resin impregnated continuous "yarns", "rovings", "tows" or "tapes" made from carbon or glass "fibrous or filamentary materials"	39169010 39209200 39219000 56049000 56075010 56075020 70191100 70191200 70191900
57	2.C.8.	Hafnium	81129200 81129900
58	2.C.9.	Lithium enriched in the lithium-6 (6Li) isotope to greater than its natural isotopic abundance	28051910 28459000

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59	2.C.10.	Magnesium	81041100 81042000 81043010 81043090 81049010 81049020 81049030 81049090
60	2.C.11.	Maraging steel	72241000 72249000 72259900 72269100 72269200 72269900 72272000 72279000
61	2.C.12.	Radium-226 (226Ra)	28444010 28444090
62	2.C.13.	Titanium alloys	81082000 81089000
63	2.C.14.	Tungsten, tungsten carbide, and alloys containing more than 90% tungsten by weight	28499000 81019900
64	2.C.15.	Zirconium	28256000 81092000 81093000 81099000 72029900
65	2.C.16.a.	Nickel powder	75040000
66	2.C.16.b	Porous nickel metal	75061000 75089090
67	2.C.17.	Tritium	28444010 28444090
68	2.C.18.	Helium-3 (3He)	28042910 28459000
69	2.C.19.	Radionuclides appropriate for making neutron sources based on alpha-n reaction	28444010 28444090 90222900
70	2.C.20.	Rhenium	81129200 81129900 81019900
71	3.A.1.	Frequency changers or generators	85044090
72	3.A.2.	Lasers, laser amplifiers and oscillators	90132090 90138090
73	3.A.3.	Valves	84811000

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74	3.A.4.	Superconducting solenoidal electromagnets	85059000
75	3.A.5	High-power direct current power supplies	85013200
			85013300
			85044090
76	3.A.6.	High-voltage direct current power supplies	85013200
			85013300
			85013400
			85044090
77	3.A.7.	All types of pressure transducers capable of measuring absolute pressures	90262000
78	3.A.8	Vacuum pumps	84141000
79	3.A.9.	Bellows-sealed scroll-type compressors and bellows-sealed scroll-type vacuum pumps	84148000 84141000
80	3.B.1.	Electrolytic cells for fluorine production	85433000
81	3.B.2.a	Rotor assembly equipment for assembly of gas centrifuge rotor tube sections, baffles, and end caps	82073000
			84622100
			84622900
			84629900
			84662000 84798999
82	3.B.2.b	Rotor straightening equipment for alignment of gas centrifuge rotor tube sections to a common axis	90318090
83	3.B.2.c	Bellows-forming mandrels and dies for producing single-convolution bellows	84669400
84	3.B.3.a.	Centrifugal balancing machines designed for balancing flexible rotors	90311000
85	3.B.3.b.	Centrifugal balancing machines designed for balancing hollow cylindrical rotor components	90311000
86	3.B.4.a	Filament winding machines	84454000
			84459000
87	3.B.4.b	Coordinating and programming controls for the filament winding machines specified in Item 3.B.4.a	85371000
88	3.B.4.c	Precision mandrels for the filament winding machines specified in Item 3.B.4.a.	84483900
89	3.B.5.	Electromagnetic isotope separators	84012000
90	3.B.6.a	Inductively coupled plasma mass spectrometers (ICP/MS)	90278090
91	3.B.6.b	Glow discharge mass spectrometers (GDMS)	90278090
92	3.B.6.c	Thermal ionisation mass spectrometers (TIMS)	90278090
93	3.B.6.d	Electron bombardment mass spectrometers	90278090
94	3.B.6.e	Mass spectrometers equipped with a microfluorination ion source designed for actinides or actinide fluorides	90278090
95	4.A.1.	Specialised packings which may be used in separating heavy water from ordinary water	84012000
96	4.A.2.	Pumps capable of circulating solutions of concentrated or dilute potassium amide catalyst in liquid ammonia (KNH <sub>2</sub> /NH <sub>3</sub> )	84135000
			84136000

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			84137000 84138190
97	4.A.3.	Turboexpanders or turboexpander-compressor sets	84118100 84118200 84148000
98	4.B.1.a.	Water-hydrogen sulphide exchange tray columns	84012000
99	4.B.1.b.	Internal contactors for the water-hydrogen sulphide exchange tray columns	84012000 84194000
100	4.B.2.	Hydrogen-cryogenic distillation columns	84012000 84194000
101	5.A.1.	Photomultiplier tubes	85402000
102	5.B.1	Flash X-ray generators or pulsed electron accelerators	85431000 90221990
103	5.B.2.	High-velocity gun systems	85013400 85014000 90241000 93019000 93039000 93040090
104	5.B.3.a.1	Streak cameras with writing speeds greater than 0.5 mm/ $\mu$ s	90071000
105	5.B.3.a.2	Electronic streak cameras capable of 50 ns or less time resolution	85258020 85258099 90071000
106	5.B.3.a.3	Streak tubes for cameras specified in 5.B.3.a.2.	85402000 85406000 85408100 85408900 90071000 85415000 85423900
107	5.B.3.a.4	Plug-ins specially designed for use with streak cameras which have modular structures and that enable the performance specifications in 5.B.3.a.1. or 5.B.3.a.2	85299090 85395000 85423100 85423200 85423300 85423900 85437090 90019000 90029000 90079100
108	5.B.3.a.5	Synchronizing electronics units, rotor assemblies consisting of turbines, mirrors and bearings specially designed for cameras specified in 5.B.3.a.1.	85395000 85423100 85423200 85423300

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			85423900 85437090 90019000 90029000 90079100
109	5.B.3.b.1	Framing cameras with recording rates greater than 225,000 frames per second	85258010 85258020 85258099 90065900 90071000
110	5.B.3.b.2	Framing cameras capable of 50 ns or less frame exposure time	85258010 85258099 90065900 90071000
111	5.B.3.b.3	Framing tubes and solid-state imaging devices having a fast image gating (shutter) time of 50ns or less specially designed for cameras specified in 5.B.3.b.1. or 5.B.3.b.2	85299090 85395000 85402000 85400000 85410000 85423100 85423200 85423300 85423900 90069900 90079100
112	5.B.3.b.4	Plug-ins specially designed for use with framing cameras which have modular structures and that enable the performance specifications in 5.B.3.b.1. or 5.B.3.b.2	85299090 85395000 85402000 85400000 85410000 85423100 85423200 85423300 85423900 90069900 90079100
113	5.B.3.b.5	Synchronizing electronics units, rotor assemblies consisting of turbines, mirrors and bearings specially designed for cameras specified in 5.B.3.b.1. or 5.B.3.b.2	85299090 85395000 85402000 85400000 85410000 85423100 85423200 85423300



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			85423900 90069900 90079100
114	5.B.3.c.1.	Solid-state cameras or electron tube cameras with a fast image gating (shutter) time of 50 ns or less	85258099
115	5.B.3.c.2.	Solid-state imaging devices and image intensifiers tubes having a fast image gating (shutter) time of 50 ns or less specially designed for cameras specified in 5.B.3.c.1.	85299090 85395000 85402000 85400000 85410000 85423100 85423200 85423300 85423900 90069900 90079100
116	5.B.3.c.3.	Electro-optical shuttering devices (Kerr or Pockels cells) with a fast image gating (shutter) time of 50 ns or less	85299090 85437090
117	5.B.3.c.4.	Plug-ins specially designed for use with cameras which have modular structures and that enable the performance specifications in 5.B.3.c.1.	85299090 85395000 85402000 85400000 85410000 85423100 85423200 85423300 85423900 90069900 90079100
118	5.B.5.a.	Velocity interferometers for measuring velocities exceeding 1 km/s during time intervals of less than 10 $\mu$ s	85305000 85423100 85423200 85423300 85423900 85437090 90132090 90268000 90314990 90318090
119	5.B.5.b.	Shock pressure gauges capable of measuring pressures greater than 10 GPa, including gauges made with manganin, ytterbium, and polyvinylidene fluoride (PVDF) / polyvinyl difluoride	85439090 90262000 90269000
120	5.B.5.c.	Quartz pressure transducers for pressures greater than 10 GPa	85439090 90262000

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121	5.B.6.	High-speed pulse generators, and pulse heads therefor	85423100 85423200 85423300 85423900 85432000
122	5.B.7.	High explosive containment vessels, chambers, containers and other similar containment devices designed for the testing of high explosives or explosive devices	73090090 73100000 73101000 73269099 84798999
123	6.A.1.a.	Electrically driven explosive detonators	36030010 36030090
124	6.A.1.b.	Arrangements using single or multiple detonators designed to nearly simultaneously initiate an explosive surface over an area greater than 5000 mm <sup>2</sup> from a single firing signal with an initiation timing spread over the surface of less than 2.5 μs	85365010 85365090 85423100 85423200 85423300 85423900 85437090
125	6.A.2.a.	Detonator firing sets (initiation systems, firesets), including electronically-charged, explosively-driven and optically-driven firing sets designed to drive multiple controlled detonators specified by Item 6.A.1. above	36030090 85423100 85423200 85423300 85423900 85437090
126	6.A.2.b	Modular electrical pulse generators (pulsers)	85423100 85423200 85423300 85423900 85432000 85437090 85489000
127	6.A.2.c	Micro-firing units	85423100 85423200 85423300 85423900 85432000 85437090 85489000
128	6.A.3.a.	Switching devices	85359000 85408900
129	6.A.3.b.	Triggered spark-gaps	85359000 85360000

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			85408900
130	6.A.3.c.	Modules or assemblies with a fast switching function	85359000 85364900
131	6.A.4.	Pulse discharge capacitors	85322100 85322300 85322400 85322500 85322900
132	6.A.5.	Neutron generator systems, including tubes	84798999 85431000 90158000
133	6.A.6.	Striplines to provide low inductance path to detonators	85446010 85446020 85446090
134	6.C.1.	High explosive substances or mixtures	36020000