

ALPHABETICAL INDEX TO THE COMMERCE CONTROL LIST

This index is not an exhaustive list of controlled items.

Description	ECCN Citation
Ablative liners, thrust or combustion chambers	9A106.a
Abrin	1C351.d.12
Absettarov (Central European tick-borne encephalitis virus)	1C360.a.1.a.1
Absolute reflectance measurement equipment	6B004.a
Absorbers of electromagnetic waves	1C001
Absorbers, hair type	1C001.a Note 1.a
Absorbers, non-planar & planar	1C001.a Note 1.b&c
Absorption columns	2B350.e
Accelerators (electro-magnetic radiation)	3A101.b
Accelerators or coprocessors, graphics	4A003.d
Accelerometer axis align stations	7B003, 7B101
Accelerometer test station	7B003, 7B101
Accelerometers & components therefor	7A101
Accelerometers & accelerometer components	7A001
Acoustic beacons	6A001.a.1.b
Acoustic beam forming software	6D003.a.1
Acoustic hydrophone arrays, towed	6A001.a.2.b
Acoustic location & object detection systems	6A001.a.1.b
Acoustic, marine, terrestrial equipment	6A991
Acoustic mounts, noise reduction equipment for vessels	8A002.o.3.a
Acoustic-optic signal processing devices	3A001.c.3
Acoustic positioning systems	6A001.a.1.d
Acoustic projectors	6A001.a.1.c
Acoustic systems, diver deterrent	6A001.c
Acoustic systems, marine	6A001.a
Acoustic transducers	6A001.a.2.c
Acoustic underwater communications systems	5A001.b.1
Acoustic vibration test equipment	9B006
Acoustic wave devices	3A001.c
Acoustic-wave device manufacturing equipment and systems	3B991.b Note
Active compensating system rotor clearance control software	9D004.d
Active flight control system software	7D003.e
Active flight control system technology	7E004.b
Active magnetic bearing systems	2A001.c
Active acoustic systems	6A001.a.1
Actively cooled mirrors	6A005.e.1
Adaptive control software	2D992.a
Adaptive control software	2D002.b.2
ADCs (analog-to-digital converters)	3A101.a
ADCs (analog-to-digital converters)	3A001.a.5
ADCs (analog-to-digital converters)	4A003.e
Aero gas turbine engine/assemblies/component test software	9D004.b
Aero gas turbine engines	9A001
Aerodynamic isotope separation plant/element housings	0B001.a.3
Aerodynamic separation process systems & components	0B001.d
Aerosol challenge testing chambers	2B352.g
Aerosol generating units specially designed for fitting to the systems specified in 2B352.h.1 or h.2	2B352.h.3
Aflatoxins	1C351.d.11
African horse sickness virus	1C352.a.17
African swine fever virus (animal pathogens)	1C352.a.1
Agitators (chemical manufacturing)	2B350.b
AHRS (Attitude Heading Reference Systems), source code	7D002
Air traffic control software	6D003.h.1
Air independent power systems (for underwater use)	8A002.j
Air compressors and filtration systems designed for filling air cylinders	8A992.l
Air Traffic Control software application programs	6D993
Airtight vaults	0A981
Airborne altimeters	7A006
Airborne altimeters	7A106
Airborne communication equipment	7A994

Index 3

Description	ECCN Citation
Airborne radar equipment	6A998
Aircraft	7A994
Aircraft, civil	9A991.b
Aircraft, demilitarized	9A991.a
Aircraft, n.e.s.	9A991
Aircraft, trainer	9A018
Aircraft breathing equipment and parts	9A991.e
Aircraft (military) pressurized breathing equipment	9A018.d
Aircraft inertial navigation systems & equipment	7A103.a
Aircraft inertial navigation systems & equipment	7A003
Aircraft parts and components	9A991.d
Akbane virus	1C360.b.1.a
Alexandrite	6C005.b
Alexandrite lasers	6A005.c.2.b
Align & expose step & repeat equipment (wafer processing)	3B001.f.1
Alignment equipment for equipment controlled by 7A	7B001
Alkylphenylene ethers or thio-ethers, as lubricating fluids	1C006.b.1
All flash x-ray machines	3A999.b
Alloy strips, magnetic	1C003.c
Alloyed materials production systems and components	1B002
Alloyed metal materials in powder or particulate form	1C002.b
Alloyed metal materials in the form of uncomminuted flakes, ribbons, or thin rods	1C002.c
Alloys, aluminum	1C202.a
Alloys, aluminum	1C002.a.2.d
Alloys, magnesium	1C002.a.2.e
Alloys, metal powder or particulate form	1C002.b
Alloys, nickel	1C002.a.2.a
Alloys, niobium	1C002.a.2.b
Alloys, titanium	1C202.b
Alpha-emitting radionuclides, compounds, mixtures, products or devices	1C236
Altimeters, airborne	7A006
Altimeters, radar or laser types	7A106
Alumina fibers	1C010.c Note 1
Aluminides	1C002.a.1
Aluminides, nickel	1C002.a.1.a
Aluminides, titanium	1C002.a.1.b
Aluminum alloys	1C002.a.2.d
Aluminum alloy/powder or particulate form	1C002.b.1.d
Aluminum alloys as tubes/solid forms/forgings	1C202.a
Aluminum electroplating equipment	2B999.i
Aluminum gallium nitride (AlGaN) "substrates", ingots, boules, or other preforms of those materials	3C005
Aluminum nitride (AlN) "substrates", ingots, boules, or other preforms of those materials	3C005
Aluminum organo-metallic compounds	3C003
Aluminum oxide powder, fine	0C201
Aluminum powder, spherical	1C111.a.1
Aluminum powder (spherical) production equipment	1B102
Amalgam electrolysis cells, lithium isotope separation	1B233.b.3
Amalgam pumps, lithium and/or mercury	1B233.b.2
Ammonia, aqueous	1C980
Ammonia crackers	0B004.b.2.d
Ammonia distillation towers	0B004.b.4.b
Ammonia synthesis converters & units	1B227
Ammonia-hydrogen exchange plant	0B004.a.2
Ammonia-hydrogen exchange equipment and components	0B004.b.2
Ammonium bifluoride	see ammonium hydrogen fluoride
Ammonium hydrogen fluoride	1C350.d.1
Ammonium nitrate, including certain fertilizers containing ammonium nitrate	1C997
Ammunition hand-loading equipment	0B986
Amorphous alloy strips	1C003
Amplifiers, microwave solid state	3A001.b.4
Amplifiers, pulse	3A999.d
Analog instrumentation tape recorders	3A002.a.1
Analog computers	4A101
Analog-to-digital converters	3A101.a

Index 4

Description	ECCN Citation
Analog-to-digital converters, integrated circuits	3A001.a.5
Analog-to-digital conversion equipment	4A003.e
Analyzers, network	3A002.e
Analyzers, spectrum	3A002.c.1
Angular displacement measuring instruments	2B206.c
Angular measuring instruments	2B006.b.2
Angular measuring instruments	2B206
Angular-linear inspection equipment (hemishells)	2B206
Angular-linear inspection equipment (hemishells)	2B006.c
Angular rate sensors	7A002
Animal pathogens	1C352
Annealing or recrystallizing equipment	3B991.b.1.c.1
Antennae, for microwave power source	0B001.i.3
Antennae, phased array	5A001.d
Antennae, phased array (for radar)	6A008.e
Anti-vibration mounts (noise reduction), civil vessels	8A002.o.3.a
Antimony hydrides	3C004
Aramid fibers & filamentary materials	1C210.a
Aramid fibers & filamentary materials	1C010.a
Arc remelt & casting furnaces	2B227.a
Argon ion lasers	6A205.a
Argon ion lasers	6A005.a
Armor body	1A005
Armor plate drilling machines	2B018.a
Armor plate planing machines	2B018.b
Armor plate quenching presses	2B018.c
Arms machinery, equipment, gear, parts, and accessories	2B018
Arms (small) chambering machines	2B018.o
Arms (small) deep hole drilling machines and drills therefor	2B018.p
Arms (small) rifling machines	2B018.q
Arms (small) spill boring machines	2B018.r
Aromatic polyimides	1C008.a.3
Aromatic polyamide-imides	1C008.a.2
Aromatic polyetherimides	1C008.a.4
Array processor microcircuits	3A001.a.3 Note
Array processors/assemblies	4A004
Array processors/assemblies	4A003
Arrays of aerosol generating units or spray booms, specially designed for fitting to aircraft, "lighter than air vehicles," or "UAVs"	2B352.h.2
Arsenic trichloride	1C350.b.1
Arsenic hydrides	3C004
Asphalt paving mixtures	1C980
Aspheric optical elements	6A004.e
Assemblies to enhance performance by aggregation of computing elements	4A994.c
Asynchronous transfer mode (ATM) equipment	5A991.c.10.d
Asynchronous transfer mode (ATM), technology for the development of equipment employing	5E001.c.1
Atomic vapor laser isotope separation plant	0B001.a.6
Atomic vapor laser isotope separation process equipment	0B001.g
Atomic frequency standards	3A002.g
Atomic transition solid state lasers	6A005.a or b
Attitude Heading Reference Systems (AHRS), source code software	7D002
Attitude control equipment for missiles	7A116
Aujeszky' disease virus (Porcine herpes virus)	1C352.a.6
Austenitic stainless steel plate, valves, piping, tanks and vessels	2B999.n
Autoclave temperature, pressure or atmosphere regulation technology	1E103
Autoclaves, ovens and systems	0B002.a
Automated control systems, submersible vehicles	8A002.b
Automatic drug injection systems	0A981
Automotive, diesel, and marine engine lubricating oil	1C980
Avian influenza virus	1C352.a.2
Aviation engine lubricating oil	1C980
Avionic equipment, parts, and components	7A994
Avionics EMP/EMI protection technology	7E102
Bacillus anthracis	1C351.c.1

Description	ECCN Citation
Bacteria	1C351.c
Bacteria	1C354.a
Bacteria	1C352.b
Baffles	0A001.h
Baffles (rotor tube), gas centrifuge	0B001.c.7
Balancing machines	2B119.a
Balancing machines	7A104.a
Balancing instrumentation	7A104.b
Balancing machines, centrifugal multiplane	2B229
Balancing machines, centrifugal multiplane	2B999.m
Ball bearings, precision hardened steel and tungsten carbide	1C999.a
Ball & solid roller bearings	2A001.b
Ball & solid roller bearings	2A001.a
Band-pass filters, tunable	3A001.b.5
Barium metal vapor lasers	6A005.b
Bartonella quintana	1C351.b.1
Batch mixers	1B117
Bathymetric survey systems	6A001.a.1.b
Batons, shock	0A985
Batons, spike	0A983
Bay cable systems	6A001.a.2.e
Bay cable systems software	6D003.a.3
Bayonets	0A918.b
Beam lead bonders, stored program controlled equipment	3B991.b.3.b
Beam steering mirrors	6A004.a.4
Beamforming techniques	6A001.a.2.c.
Bearings, ball & solid roller	2A001.a
Bearings, ball & solid roller	2A001.b
Bearings, gas centrifuge	0B001.c.4
Bearings, gas centrifuge	0B001.c.5
Bearings, high precision/temperature/special	2A001
Bearings, magnetic (active)	2A001.c
Bearings, magnetic (suspension)	0B001.c.4
Bearings, precision hardened steel and tungsten carbide	1C999.a
Bearings, solid roller	2A001.b
Bellow valves	0B001.b.1
Bellow valves	0B001.d.6
Bellows forming dies	2B999.b
Bellows manufacturing equipment	2B999.b
Bellows or rings, gas centrifuge	0B001.c.6
Bellows seal valves	2A226
Bellows seal valves	2B350.g
Bellows sealed valves, n.e.s.	2A999
Bellows-forming mandrels	2B228.c
Bellows-forming dies	2B228.c
Benzilic acid	1C350.b.2
Beryllium metal, alloys, compounds, or manufactures	1C230
Beryllium metal particulate	1C111.a.2.b
Beryllium/beryllium substrate blanks	6C004.d
Biological containment facilities, ACDP level 3 or 4	2B352.a
Biological isolators	2B352.f.2
Biological manufacturing equipment & facilities	2B352
Biological safety cabinets	2B352.f.2
Bismaleimides	1C008.a.1
Bismuth	1C229
Bladders for aircraft/aerospace, fuel	1A001.a
Bladders for aircraft/aerospace/missiles, fuel	1A001.c
Blanks, beryllium/beryllium (Be/Be) deposited material	6C004.d
Blanks, Zinc selenide (ZnSe) substrate	6C004.a
Blanks, Zinc sulphide (ZnS) substrate	6C004.a
Blowers, axial flow/centrifugal/positive displacement/turbo	0B001.b.2.b
Blowers, positive displacement/centrifugal/axial flow), gas	0B001.d.3
Bluetongue virus	1C352.a.3
Boats	8A992.f

Description	ECCN Citation
Body armor	1A005
Boilers, Marine	8A918
Bombs, smoke	1A984
Bonding equipment	3B991.b.3.b
Boring equipment, large	2B999.h.1
Boring machines (CNC)	2B001
Boring machines (CNC)	2B201
Boron	1C011.b
Boron carbide particulate	1C011.b
Boron & boron compounds	1C225
Boron fibers	1C010.c Note 3
Boron metal particulate	1C111.a.2.c
Bottom cable systems	6A001.a.2.e
Bottom cable systems software	6D003.a.3
Botulinum toxin	1C351.d.1
Boules of electro-optic materials	6C004.b
Bovine spongiform encephalopathy agent	1C360.b.1.b
Brayton cycle engine, air independent	8A002.j.1
Breathing equipment and parts, pressurized aircraft	9A991.e
Bridges & gateways, telecommunication	5A991.b.4.a
Bridges & gateways, telecommunication	5A991.c.9
Brucella abortus	1C351.c.2
Brucella suis	1C351.c.4
Brucella melitensis	1C351.c.3
Buckshot shotgun shells	0A984
Bulk acoustic wave devices	3A001.c.2
Bulk fluoride glass, low optic absorption	6C004.e.2
Bulletproof and bullet resistant vests	1A005
Burkholderia mallei (Pseudomonas mallei)	1C351.c.5
Burkholderia pseudomallei (Pseudomonas pseudomallei)	1C351.c.6
Butacene	1C111.c.1
Cable – optical fiber & accessories for underwater use	5A001c.2
Cables, Optical fiber	5A001c.1
Cables with surreptitious intrusion detection	5A002.a.7
CAD (Computer-aided-design) software for semiconductors	3D003
Cadmium telluride (CdTe) single crystals/epitaxial wafers	6C002.b
Cadmium zinc telluride (CdZnTe) single crystals & epitaxial wafers	6C002.b
Calcium	1C227
Calcium fluoride (CaF ₂) made/coated crucibles	2A225.a.1
Calcium zirconate (metazirconate) (Ca ₂ ZrO ₃) crucibles	2A225.a.2
Calibration, test or alignment equipment for equipment controlled by 7A	7B001
Camel pox virus	1C360.b.1.c
Camera equipment, underwater, n.e.s.	8A992.d
Camera, designed or modified for remote operation with submersible vehicle	8A992.a.1
Cameras, electronic framing type	6A003.a.4
Cameras, electronic framing type	6A203.b.2
Cameras, electronic streak type	6A003.a.3
Cameras, electronic streak type	6A203.b.1
Cameras, framing	6A003.a
Cameras, framing	6A203
Cameras, imaging	6A003.b
Cameras, imaging, thermal, software for increasing frame rate	6D994
Cameras, mechanical	6A203.a.1
Cameras, mechanical	6A003.a
Cameras, photo-optical step and repeat	3B991.b.2.d.1
Cameras, radiation hardened TV	6A203.c
Cameras, scanning & scanning camera systems	6A003.b.2
Cameras (still), underwater photographic	8A002.e
Cameras (still), for underwater use	8A992.b
Cameras, video using solid state sensors	6A003.b.1
Cameras and components	6A003
Cameras and components not controlled by 6A003	6A203
Cameras not controlled by 6A003 or 6A203	6A993
Canopies, complete	9A992

Description	ECCN Citation
Capacitors	3A001.e.2
Capacitors	3A201.a
Capacitors, high voltage	3A999.c
Caps (rotor tube), gas centrifuge	0B001.c.8
Carbon dioxide and monoxide	1C980
Carbon dioxide (CO ₂) lasers	6A005.d.3
Carbon fiber & filamentary materials	1C010.b
Carbon fiber & filamentary materials	1C210.a
Carbon fiber preforms	1C010.e
Carbon fibrous or filamentary materials	1A002.b.1
Carbon monoxide (CO) lasers	6A005.d.2
Carbon or alumina fiber conversion equipment	1B001.d.4
Carbon-carbon components, resaturated pyrolyzed	1A102
Carbon-carbon materials, resaturated pyrolyzed	1C102
Carbonyl dichloride (75–44–5) (Phosgene)	1C355.b.1.a
Carboxy-terminated polybutadiene (CTPB)	1C111.b.1
Casks for transport of radioactive material	2A291.c
Casting and remelt arc furnaces	2B227.a
Catalysts, platinized	1A225
Catalytic burners, deuterium conversion to heavy water	0B004.b.4.c
Cathodes (Impregnated) for electronic tubes	3A001.b.1.c
Cathodes	3A001.b.1
Cathodic arc deposition production equipment	2B005.f
Cedar, Western red	1C988
Cells, primary & secondary	3A001.e.1, 3A991.j
Cellular radio equipment/system software	5D991
Central European tick-borne encephalitis viruses (i.e., Absettarow, Hanzalova, Hypr, and Kumlinge)	1C360.a.1.a
Centralized network control	5A991.e
Centralized network control development/production technology	5E991
Centrifugal decanters	2B352.c
Centrifugal fixtures for gyro bearings	7B003, 7B101
Centrifuge housing/recipient	0B001.c.12
Centrifugal isotope separation equipment & components	0B001.c
Centrifugal isotope separation plant auxiliary equipment	0B002
Centrifugal isotope separation plant, equipment & components	0B001.a.2
Centrifugal multiplane balancing machines	2B999.m
Centrifugal multiplane balancing machines for flexible rotors	2B229.a
Centrifugal separators	2B352.c
Centrifuge rotor balancing equipment	2B229
Centrifuge rotor assembly equipment	2B228.a
Centrifuges capable of imparting accelerations above 100 g	2B122
Centrifuges, gas	0B001.c.1
Ceramic based materials	1C007
Ceramic base materials, of single or complex borides of titanium	1C007.a
Ceramic composite materials, useable for radomes or nose tips	1C107.b
Ceramic cores for blades & vanes	9B001.b
Ceramic core manufacturing equipment	9B991.d
Ceramic fibers	1C010.c Note 4
Ceramic non-composite materials	1C007.b
Ceramic shells for blades & vanes	9B001.b
Ceramic shell wax pattern preparation equipment	9B991.e
Ceramic-ceramic composite materials	1C007.f
Ceramic-ceramic-matrix composite materials	1C007.d
Ceramic-matrix composite materials	1C007.c
Cercopithecine herpes virus 1 (Herpes B virus)	1C360.a.1.b
Cerium sulphide (Ce ₂ S ₃) made/coated crucibles	2A225.a.3
Certification software for information security software	5D002.c.2
Chambers, aerosol challenge testing (capacity of 1 m ³ or more)	2B352.g
Changers, frequency	3A999.a
Changers, frequency (converters or inverters)	0B001.c.11
Changers, frequency (converters or inverters)	3A225
Charges, containing military explosives for civil applications	1C018.o
Charges, non-irritant smoke	1A984
Charges, shaped for oil well operations	1C992.a

Description	ECCN Citation
Chemical agents	1A984
Chemical disposal technology	1E351
Chemical exchange isotope separation process plant, components	0B001.e
Chemical exchange isotope separation process plant, equipment	0B001.a.4
Chemical incinerators	2B350.j
Chemical production process control software	1D390
Chemical production facility technology	1E350
Chemical vapor deposition (CVD) equipment, plasma enhanced	3B001.d
Chemical warfare (CW) precursors	1C350
Chemical lasers	6A005.d.5
Chemical manufacturing equipment	2B350
Chemical manufacturing facilities	2B350
Chemical (precursor) mixtures and test kits	1C395
Chemical (precursor) mixtures, used in the production of chemical warfare agents	1C995
Chemical storage tanks & containers	2B350.c
Chemical Vapor deposition (CVD) equipment	3B991.b.1.i
Chemical vapor deposition (CVD) equipment, epitaxial growth	3B001
Chemical vapor deposition (CVD) equipment, production (fiber)	1B001.d.2
Chemical vapor deposition (CVD) equipment, production	2B005.a
Chemicals, CWC Schedule 2 and 3	1C355
Chemicals, precursors for toxic chemical agents	1C350
Chikungunya virus (Human pathogen)	1C351.a.1
Chip carrier bonders, stored program controlled equipment	3B991.b.3.b
Chlamydia psittaci	1C351.c.7
Chlorine trifluoride (ClF ₃)	1C238
2-Chloroethanol	1C350.d.2
Chlorofluorocarbon, as hydraulic fluids	1C006.a.2
Chloropicrin (trichloronitromethane)(76-06-2)	1C355.b.3
Cholera toxin	1C351.d.13
Chromatography analytical instruments	3A999.f
Chronometry equipment	3A999.e.2
Cinema recording cameras	6A003.a.1
Clean room filters	3B991.b.4
Clicker dies	1B101.d
Clostridium perfringens, epsilon toxin producing types	1C351.c.14
Clostridium perfringens toxins	1C351.d.2
Clostridium botulinum	1C351.c.8
Clothing & materials, bullet-resistant	1A005
CNTD (Controlled nucleation thermal decomposition) equipment	2B005.a.1.b
Coating application & processing technology, optic fibers	5E991.a.1
Coating application technology, for non-electronic substrates	2E003.f
Coating application & processing technology, optic fibers	5E001.b.3
Coating equipment for prepregs/preform production	1B101.d
Coating & processing equipment, for non-electronic substrates	2B005
Coatings for reduced electromagnetic visibility	1C101
Coccidioides immitis	1C351.e.1
Coccidioides posadasii	1C351.e.2
Cochliobolus miyabeanus (Helminthosporium oryzae)	1C354.b.2
Coils, radio frequency ion excitation	0B001.i.2
Cold boxes, hydrogen distillation	0B004.b.3.a
Cold traps/desublimers for UF ₆ removal	0B002.b
Cold traps/desublimers for UF ₆ removal	0B001.d.7.d
Cold-cathode tubes	3A228.a
Collector systems, UF ₆ product and tails	0B001.g.3
Colletotrichum coffeanum var. Virulans (Colletotrichum kahawae)	1C354.b.1
Colletotrichum Kahawae (Colletotrichum coffeanum var. Virulans)	1C354.b.1
Color center lasers	6A005.c.1, c.2 or c.3
Column, absorption or distillation	2B350.e
Column, liquid-liquid exchange, for lithium amalgams	1B233.b.1
Combined cycle engines/components	9A011
Combustion regulation devices, missile engines	9A118
Common channel signaling equipment/systems	5A991.c.8
Common channel signaling, equipment for the development of equipment employing	5B001.b.5
Common channel signaling, technology for the development of equipment employing	5D001.c.5

Description	ECCN Citation
Communication channel controllers	5A991.b.4.b
Communication equipment, airborne	7A994
Communication (mobile) equipment, assemblies and components	5A991.g
Communications interception devices, parts and accessories	5A980, 5D980, 5E980
Communications cable systems, secure	5A002.a.7
Communications Systems (underwater)	5A001.b.1
Compasses	8A992.j
Compasses (gyro-astro) & other position or orientation deriving devices	7A004
Compasses (gyro-astro) & devices, other than those of 7A004	7A104
Components made from Fluorinated compounds	1A001
Components/structures for spacecraft	9A010
Composite conductors, superconductive	1C005
Composite or laminate development software	1D002
Composite structures, as tubes	1A202
Composite structures or laminates	1A002
Composite (structural) production equipment, n.e.s.	1B999.e
Composite (structural) production equipment controlled by 1B999, software for	1D999
Composite materials, ceramic-ceramic	1C007.f
Composites production equipment	1B001
Composite structures for propulsion systems or space vehicles	9A110
Composites (structural) production equipment	1B101
Compound rotary tables for machine tools	2B009.c
Compound semiconductor integrated circuits	3A001.a.11
Compound semiconductor photocathodes	6A002.a.2.b.3
Compressors	0B001.d.3
Compressors, hydrogen sulphide gas	0B004.b.1.b
Compressors, turboexpander	1B232
Compressors, turbo/centrifugal/axial flow	0B001.b.2.a
Compressors, UF ₆ resistant	0B001.h.4
Computer, electronic assemblies & equipment & components	4A001, 4A003, 4A004, 4A994
Computer, electronic components	4A101
Computer, electronic components	4A102
Computer aided design (CAD) equipment for semiconductor devices or integrated circuits	3B991.b.2.c
Computer-aided-design (CAD) software for IC's & semiconductors	3D003
Computer interconnect equipment	4A003.g
Computer/assemblies/components, neural	4A004.b
Computer/assemblies/components, optical	4A004.c
Computers, electronic assemblies, and related equipment and components not controlled by 4A001 or 4A003	4A994
Computers, analog & analog ruggedized	4A101
Computers for fingerprint equipment	4A980
Computers, digital ruggedized	4A101
Computers/assemblies/components, systolic array	4A004.a
Computers, analog	4A001
Computers, digital	4A003
Computers, digital	4A004
Computers, digital	4A001
Computers, hybrid	4A102
Computers and electronic assemblies (hybrid), and specially designed components therefor	4A994.k
Computers, with extended operating temperature range	4A001.a.1
Computers, radiation hardened	4A001.a.2
Concealed object detection equipment	2A984, 2D984, 2E984
Condensers for use in nuclear reactors	2A290.a
Condensers or heat exchangers	2B350.d
Conductive polymers	1C001.c
Conductors, superconductive composite	1C005
Congo-Crimean haemorrhagic fever virus (a.k.a. Crimean-Congo haemorrhagic fever virus)	1C351.a.2
Conotoxin	1C351.d.3
Contactors, chemical exchange (ammonia-hydrogen)	0B004.b.2.b
Contactors, liquid-liquid centrifugal	0B001.e.1
Containers, chemical	2B350.c
Containment facilities	2B352.a
Continuous mixers	1B118

Index 10

Description	ECCN Citation
Contrarotating propellers	8A002.o.1.b
Control rods, for nuclear reactors	0A001.c
Control units for metallurgical melting & casting furnaces	2B227
Control systems, on-line development of gas turbine engines	9B002
Controllable-pitch propellers	8A002.o.2.a
Controlled atmosphere melting & casting furnaces	2B227
Controlled environment (vacuum or inert gas) induction furnaces	2B226
Controlled nucleation thermal decomposition (CNTD) equipment	2B005.a.1.b
Controllers, machine tool (CNC)	1B001.a
Controllers for high explosive handling robots	2B207
Controllers, robot	2B007
Converter integrated circuits	3A001.a.5
Converter interfaces for digital video magnetic tape recorders	3A002.a.4
Converters, frequency	0B001.c.11
Converters, frequency	3A225
Converters, frequency extender	3A001.b.7
Cooling equipment for crucibles	0B001.i.5
Cooling equipment for molten uranium	0B001.g.2
Cooling fluid (fluorocarbon electronic) development, production, or use technology	1E994
Cooling fluids – electronic	1C006.d
Cooling fluids, fluorocarbon electronic	1C006.d
Cooling systems, freon and chilled water	1B999.d
Copper or phosphor bronze mesh packings	1A226
Copper metal vapor lasers	6A005.b
Coprocessor microcircuits	3A001.a.3 Note
Coprocessors or accelerators, graphics	4A003.d
Core grid plates	0A001.h
Core support structures	0A001.h
Correlation-velocity sonar log equipment	6A001.b
Counter-current solvent extractors	0B006.c
Coxiella burnetii	1C351.b.2
Crime science laboratories, parts and accessories, nonmilitary mobile	9A980
Crimean-Congo haemorrhagic fever virus (a.k.a. Congo-Crimean hemorrhagic fever virus)	1C351.a.2
Critically safe tanks, nuclear fuel reprocessing	0B006.b
Cross-flow filtration equipment	2B352.d
Crossed-field amplifier tubes	3A001.b.1.b
Crucibles, liquid actinide resistant	2A225
Crucibles, resistant to molten uranium	0B001.g.2
Crucibles, resistant to molten uranium	0B001.i.5
Crucibles, tantalum	2A225.b.c
Crude petroleum or shale oil	1C981
Cryocoolers for optical sensors, space qualified	6A002.d.1
Cryocoolers for optical sensors, non-space qualified	6A002.d.2
Cryogenic distillation towers & cold boxes	0B004.b.3.a
Cryogenic heat exchangers for UF ₆ /Carrier gas separation	0B001.d.7.a
Cryogenic refrigeration units	0B001.d.7.b
Cryoseparators	0B001.d.7.a
Cryptanalytic equipment or devices, digital	5A002.a.2
Cryptoanalytic equipment and components, n.e.s.	5A992
Cryptographic equipment and components, n.e.s.	5A992
Cryptography equipment or devices, digital	5A002.a.1
Cryptography equipment or devices, analog	5A002.a.3
Cryptologic equipment, software for the development, production or use of	5D992
Cryptologic equipment and components, n.e.s.	5A992
Cryptologic equipment, technology for the development, production or use of	5E992
Crystal pullers and furnaces	3B991.b.1.c
CTPB (Carboxy-terminated polybutadiene)	1C111.b.1
Custom integrated circuits	3A001.a.2 and a.10
Cutting tool inserts, single diamond point	2B998.b
Cutting machines, gears	2B003
Cutting equipment for prepregs/preform production	1B101.d
CVD (Chemical vapor deposition) equipment	1B001.d.2
CVD (Chemical vapor deposition) equipment	2B005.a
CVD (Chemical vapor deposition) equipment	1B101.c.2

Description	ECCN Citation
CVD (Chemical vapor deposition) equipment, plasma enhanced	3B001.d
CVD (Chemical vapor deposition) furnaces, other than those controlled by 2B005.a, designed or modified for the densification of carbon-carbon composites	2B105
CW (Chemical warfare) precursors	1C350
Cyanogen chloride (506–77–4)	1C355.b.1.b
Cylinder wall lubrication technology, diesel engines	9E003.e.3
DACs (Digital-to-analog converters)	3A001.a.5
DBRN (Data Based Referenced Navigation) systems technology	7E004.a.7
Damping, flotation or lubricating fluids	1C006.c
Data acquisition systems for gas turbine engine development	9B002
Data (message) switching equipment, systems, components and assemblies	5A991.c.1
Data acquisition equipment for wind tunnels, automatic	9B005
Data Based Referenced Navigation (DBRN) systems for underwater navigation, technology	7E004.a.7
Datagram packet routing or switching equipment	5A991.c.3
Decanters, centrifugal	2B352.c
Decontamination equipment	1A004, 1A995
Deep-hole drilling machines	2B001.f
Defect, error or contaminant detection equipment for wafers or substrates	3B992.b.1
Deformable mirrors	6A004.a.1
Degassing equipment	2B350
DEGDN (diethylene glycol dinitrate)	1C111.c.5
Dengue fever virus	1C351.a.3
Depleted Uranium	1A290
Depleted Uranium	0C001
Depth sounders	6A001.a.1
Design integration of guidance sets, software	7D103
Desublimers for UF ₆ removal	0B002.b
Detection and protection equipment and components	1A004, 1A995, 2B351, 2B352
Detection equipment, seismic	6A999.a
Detection equipment, radiation	1A004, 1A995, 1A999.a
Detection equipment, radiographic	1A999.b
Detection systems for explosives and detonators	1A004.d, 2A983, 2D983, 2E983
Detection or location systems (acoustic)	6A001.a.1.b
Detectors, optical	6A002.a
Detectors, radiation hardened	6A102
Detectors, space-qualified solid state optical	6A002.a.1
Detonation cord	1A008, 1C992.c
Detonator detection	2A983, 2D983, 2E983
Detonators and multipoint initiation systems	3A229
Detonator firing sets, for multiple detonators of 3A232	1A007, 3A229
Detonators, electric or non-electric	1C018.d, 1C992.e
Detonators, exploding bridge wire (EBW)	1A007
Detonators, exploding bridge (EB)	1A007
Detonators, exploding foil initiators (EB)	1A007
Detonators, slapper (electric)	1A007
Deuterated compounds, (e.g. Deuterated paraffins)	0C004
Deuterium & deuterium compounds as mixtures & solutions	0C004
Deuterium/deuterium compound production plant, equipment– & components	0B004
Deuterium fluoride-carbon dioxide (DF-CO ₂) lasers	6A005.d.5
Deuterium fluoride (DF) lasers	6A005.d.5
Di-isopropylamine	1C350.d.4
Diacetoxyscirpenol toxin	1C351.d.14
Dialkyl (Me, Et, n-Pr or i-Pr) N,N-dialkyl (Me, Et, n-Pr, or i-Pr)–phosphoramidates	1C355.a.2.c
Diamond cutting tool inserts, single point	2B998.b
Diamond film substrate development/production technology	3E003.d
Diaphragms, made from fluoroelastomers	1A001.c
Diaphragm valves	2B350.g
Dibromotetrafluoroethane based damping or flotation fluids	1C006.c.1
Die bonder, stored program controlled	3B991.b.3.a
Diesel engines for submarines	8A018.b.1
Diesel engines, nonmagnetic	8A018.b.3
Dies, bellows-forming	2B228.c
Diesel engines, n.e.s.	9A990
Diesel cycle engine, air independent	8A002.j

Index 12

Description	ECCN Citation
Diethyl ethylphosphonite	1C350.b.3
Diethyl methylphosphonite	1C350.b.4
Diethyl phosphite	1C350.c.1
Diethyl-N, N-dimethylphosphoramidate	1C350.b.5
Diethylaminoethanol	1C350.d.3
Diethylene glycol dinitrate (DEGDN)	1C111.c.5
Diffuser plates	0A001.h
Diffusion bonding technology, metal working	2E003.b.1.b
Diffusion bonding technology/data, super alloys or Ti alloys	2E003.b.2.b
Diffusion bonding tools, dies, molds or fixtures	1B003
Digital array processors	3A001.a.3 Note
Digital computers	4A003
Digital computers	4A994.b
Digital computers, electronic assemblies & related equipment	4A003
Digital computers, electronic assemblies & related equipment	4A001
Digital computers, fault tolerant	4A003.a
Digital computers, logic processors	4A003
Digital computers, ruggedized	4A101
Digital computers, signal processing	4A003
Digital computers, vector processors	4A003
Digital computer electronic assemblies, parallel processing	4A003.c
Digital computer systems	4A004
Digital computer systems	4A003.c
Digital computer systems	4A003.b
Digital computer systems	4A001
Digital coprocessors	3A001.a.3 Note
Digital differential analyzer, ruggedized	4A101
Digital electronic control software for propulsion systems, aerospace test facilities or air breathing aero-engine test facilities	9D003.a
Digital exchanges, telecommunication	5A991.c
Digital instrumentation tape data recorders	3A002.a.3
Digital signal processors	3A001.a.3 Note
Digital signal processors	4A003
Digital time delay generators	3A999.e.1
Digital video magnetic tape recorders	3A002.a.2
Digital-to-analog converter integrated circuits (DACs)	3A001.a.5
Digitally controlled radio receivers	5A001.b.5
Digitizers, waveform	3A002.a.5
Dimensional inspection or measuring systems or equipment not controlled by 2B006	2B996
Dimensional inspection machines	2B206
Dimensional inspection equipment/systems	2B006.a
Dimensional inspection equipment/systems	2B006.c
Dimensional measuring equipment, instruments/systems	2B006.b
Dimethyl ethylphosphonate	1C350.b.10
Dimethyl methylphosphonate	1C350.b.11
Dimethyl phosphite	1C350.c.2
Dimethylamine	1C350.d.5
Dimethylamine hydrochloride	1C350.d.6
Dinitrogen tetroxide (Nitrogen dioxide)	1C111.a.3.b
Dinitrogen trioxide	1C111.a.3.a
Dinitrogen pentoxide	1C111.a.3.c
2,2' Dinitropropanol	1C018
Diodes, laser	6A005.d.1
Diortho tolyl-urethane	1C018.g
Diphenyl urethane	1C018.f
Direct view imaging equipment	6A002.c
Direct-acting hydraulic pressing technology for metal working	2E003.b.2.c
Direction finding equipment & components, surveillance	5A001.e
Direction finding equipment, parts & components, navigation, not controlled under 7A003 or 7A103	7A994
Direction finding systems, equipment & components, navigation (inertial)	7A003
Direction finding systems, equipment & components, navigation, not controlled under 7A003	7A103
Directional solidification casting control software	9D004.c
Directional solidification casting equipment	9B001.a
Discharge type arms	0A985

Description	ECCN Citation
Disk drive (magnetic hard) development or production technology	4E993.c
Disk drives	4A994.d
Disruptors	1A006.b
Dissolvers, for nuclear fuel	0B006.b
Distillation columns	2B350.e
Distillation columns, hydrogen-cryogenic	1B228
Distillation equipment, purification of UF ₆	0B003.b.2
Distillation Towers (ammonia)	0B004.b.4.b
Distillation towers and cold boxes (hydrogen cryogenic)	0B004.b.3.a
Distillation towers, packings	1A226
Dive computers	8A992.j
Diver deterrent acoustic systems	6A001.c
Dobrava (pulmonary and renal syndrome-haemorrhagic fever viruses)	1C351.a.30
Doppler laser interferometers (DLIs)	6A225
Double seal valves	2B350.g
Drilling equipment	2B999.h
Drilling machines, deep-hole	2B001.f
Dry etching equipment, anisotropic plasma	3B001.c
Dye lasers	6A005.c
Dye lasers	6A205
Dynamic adaptive routing equipment	5A991.c.9
Dynamic signal analyzers	3A002.c.2
Dynamic wavefront (phase) measuring equipment	6A005.f.1
Dynamic adaptive routing software	5D991.a
E-beam welders	2B999.e
Earth moving equipment, large	2B999.h.2
Eastern equine encephalitis virus	1C351.a.4
EB-PVD (Electron beam physical vapor deposition) equipment	2B005.c
Ebola virus	1C351.a.5
Eddy current test equipment for nuclear reactors	2A291.d
EDMs, non-wire feed types	2B001.d
EDMs, wire feed type	2B991d.1
Electric cattle prods	0A985
Electric detonators, explosive	3A232.a
Electric propulsion engines	8A002o.2.b
Electrical discharge machines, non wire feed (CNC)	2B001.d
Electrical discharge machines (EDM) of the wire feed type	2B991.d.2
Electrically driven explosive detonators	3A232.a
Electro-optic materials	6C004
Electro-optical device manufacturing equipment and systems	3B991.b Note
Electro-optical integrated circuits	3A001.a.6
Electrochemical reduction cells	0B001.e.3
Electrochemical reduction cells, feed equipment	0B001.e.4
Electrolysis cells, amalgam lithium isotope separation	1B233.b.3
Electrolytic cells for fluorine production	1B225
Electrolytic cells for fluorine production not controlled by 1B225	1B999.a
Electromagnetic interference (EMI) protection technology	7E102
Electromagnetic isotope separation equipment & components	0B001.j
Electromagnetic isotope separation plant	0B001.a.9
Electromagnetic isotope separators	1B226
Electromagnetic pulse (EMP) protection, detectors	6A102
Electromagnetic pulse (EMP) protection technology, avionics	7E102
Electromagnetic radiation sensors, optical fiber	6A002.d.3.a
Electromagnetic signature reduction devices	1A101
Electromagnetic signature reduction materials	1C101
Electromagnetic underwater communications systems	5A001.b.1.b
Electromagnets, superconductive	3A201.b
Electromagnets, superconductive	3A001.e.3
Electron beam cutting machines (CNC)	2B001.e.1.b
Electron beam equipment for mask making/semiconductor devices	3B001.f.2
Electron beam equipment for projection image transfer	3B991.b.2.g
Electron beam guns, high power	0B001.g.1
Electron beam melting furnaces	2B227.b
Electron beam physical vapor deposition (EB-PVD) equipment	2B005.c

Index 14

Description	ECCN Citation
Electron beam sensitive resist materials	3C002.b
Electron beam systems, for probing semiconductor devices	3B992.b.5
Electron beam systems	3B991.b.1.j
Electron beam test systems	3B992.b.5
Electron bombardment mass spectrometers	3A233.d
Electron cyclotron resonance (ECR) CVD equipment	3B001.d.1.b
Electron cyclotron resonance (ECR) plasma dry etching equipment	3B001.c.1.b
Electron tube manufacturing equipment and components	3B991.a
Electron tube inspection or testing equipment and components	3B992.a
Electronic assemblies	4A003
Electronic assemblies and related equipment not controlled by 4A001 or 4A003	4A994
Electronic assemblies specially designed to provide feedback capability in systems controlled by 2B006.b.1.c	2B006.b.1.d
Electronic beam gun, Strip	0B001.g.1
Electronic beam gun, Scanning	0B001.g.1
Electronic cameras	6A003.a.5
Electric chairs	0A981
Electronic components	3A001
Electronic components	3A201
Electronic components	3A101
Electronic Components and materials inspection or testing equipment, components and accessories	3B992
Electronic components and materials manufacturing equipment	3B991
Electronic components and materials manufacturing equipment, not controlled by 3B001	3C001
Electronic computers	4A994.a
Electronic computers & related equipment	4A001, 4A003, 4A004, 4A994
Electronic computers & related equipment	4A101
Electronic computers & related equipment	4A102
Electronic controls, for nuclear reactors	0A001.d
Electronic cooling fluids	1C006.d
Electronic framing cameras	6A203.b.2
Electronic streak cameras & streak tubes	6A003.a.3
Electronic streak cameras & streak tubes	6A203.b.1
Electronically steerable antennae, phased array	5A001.d
Electroplating equipment	2B999.i
EMP/EMI protection technology, avionic systems	7E102
Encoders, rotary input shaft type	3A001.f
Encryption equipment, assemblies & components	5A002
Encryption software	5D002
End effectors, robot	2B207
End effectors, robot	2B007
Energy storage capacitors	3A001.e.2
Engines, diesel n.e.s.	9A990
Engines (marine), n.e.s.	8A992.g
Engines (submarine), n.e.s.	8A992.g
Engines (air breathing reciprocating or rotary internal combustion type)	9A012.b4
Enrichment plant, isotope	0B001
Enterohaemorrhagic Escherichia coli, serotype O157 and other verotoxin producing serotypes	1C351.c.15
Environmental chambers	1B018.b, 9B106.b
Environmental chambers, capable of simulating flight conditions	9B106.a
Epitaxial growth equipment	3B001.a
Epitaxial growth stored program controlled equipment	3B991.b.1.d
Epitaxial wafers, Cadmium telluride (CdTe)	6C002.b
Epoxy resin matrix impregnated carbon fibers or filamentary materials	1C010.e Note 1
Equine morbillivirus (Hendra virus)	1C351.a.29
Erbium oxide (erbia) (Er ₂ O ₃) made/coated crucibles	2A225.a.4
Ehrlichia ruminantium (a.k.a. Cowdria ruminantium)	1C360.b.3.a
Etching stored program controlled equipment	3B991.b.1.h
Ethers, as lubricating fluid	1C006.b.1
O-ethyl-2-diisopropylaminoethyl methylphosphonite (QL)	1C350.a.1
Ethyl centralites	1C018.a
Ethyl phenyl urethane	1C018.e
Ethyl phosphinyl dichloride	1C350.b.12
Ethyl phosphinyl difluoride	1C350.b.13
Ethyl phosphonous dichloride	1C350.b.12

Description	ECCN Citation
Ethyl phosphonous difluoride	1C350.b.13
Ethyl phosphonyl dichloride	1C350.b.14
Ethyl phosphonyl difluoride	1C350.a.2
Ethyl-NN-diphenylurea (ethyl unsymmetrical diphenylurea)	1C018.d
Ethyldiethanolamine (139–87–7)	1C355.b.2.a
Evaporators for concentrated lithium hydroxide solution	1B233.b.4
Exchange columns, liquid-liquid for lithium amalgams	1B233.b.1
Exchanges, telecommunication	5A991.c
Excimer lasers	6A005.d.4
Execution of human beings, equipment for	0A981
Expert systems – integration systems technology	2E003.e
Exploding foil initiators (EFI)	1A007
Exploding bridge (EB) detonators	1A007
Exploding bridge wire (EBW) detonators	1A007
Explosive, high	1C239
Explosive/munitions environment handling robots	2B007.b
Explosive detection	1A004.d
Explosive detonator firing sets	1A007.a
Explosives or detonator detection equipment, software, or technology	2A983, 2D983, 2E983
Explosive detonators, electric	1A007.b, 3A232
Explosive devices, charges, components – commercial	1A008, 1C992.l
Explosives (military) production equipment	1B018.a
Explosives (military) in charges for civil applications	1A008, 1C018
FADEC (Full authority digital electronic engine control) software	9D003
FADEC (Full authority digital electronic engine control) technology	9E003.h
Fan blade (hollow) technology	9E003
Fast reacting ion-exchange resins	0B001.f.1
Fast Fourier Transform (FFT) processors	3A001.a.12
Fast switching function modules or assemblies	3A228.c
Fast select packet routing or switching equipment	5A991.c.4
Fast fourier transform processors, acoustic signal processing	6A001.a.2.c
Fast-exchange liquid-liquid pulse columns	0B001.e.2
Fault tolerant digital computers	4A003.a
Fault tolerance FADEC software	9D003.b
Feed preparation systems for Uranium Chloride production	0B001.e.5
Fermenters, biological processing	2B352.b
Fertilizers containing ammonium nitrate	1C997
Fiber, equipment for the production of	1B999
Fiber and filamentary material	1C010
Fiber and filamentary material	1C210
Fiber converting equipment, polymeric to carbon or silicon carbon	1B001.d.1
Fiber optic cable	5A001.c.1
Fiber optic gyro coil winding machines	7B003
Fiber optic magnetometers	6A006.c
Fiber optic hull penetrators/connectors	8A002.c
Fiber optic wave division multiplex equipment	5A991.b.5
Fiber preforms, metal coated, for fiber prepregs in 9C110	9C110
Fiber prepregs, resin impregnated, for items in 9A110	9C110
Fiber reinforcement, production equipment	1B001.d
Fiber straining equipment	1B001.d.1
Fiber surface treatment equipment	1B101.d
Fibrous or filamentary materials	1C210
Fibrous or filamentary materials	1C010
Fibrous or filamentary materials, carbon	1A002.b.1
Fibrous and filamentary materials for use in composite structures	1C990
Fibrous or filamentary material production equipment	1B001
Fibrous or filamentary material production equipment	1B101.c
Fibrous and filamentary materials development, production or use technology	1E994
Field programmable gate arrays (FPGA)	3A001.a.7
Field programmable logic arrays (FPLA)	3A001.a.7
Field programmable logic devices	3A001.a.7
Field programmable logic devices	3A991.c
Filament winding machines	1B001.a
Filament winding machines	1B101.a

Index 16

Description	ECCN Citation
Filament winding machines	1B201
Filling equipment, remotely controlled	2B350.f
Film type integrated circuits	3A001.a Note 2
Filter canisters	1A004, 1A995
Filters, tunable band-pass	3A001.b.5
Filters for clean rooms	3B991.b.4
Filters, optical	6A994.a
Fine aluminum oxide powder	0C201
Finger cuffs	0A983
Fingerprint analyzers, cameras and equipment	3A981
Fingerprint equipment, computers for	4A980
Fingerprinting powders, dyes, inks	1A985
Fingers, for surface effect vessels	8A002.k
Finishing machines, gear	2B003
Finishing machines, gear	2B003
Fins	8A992.i
Firearms, muzzle-loading (black powder)	0A018.c
Firing sets, for multiple detonators of 3A232	1A007, 3A229.a
Fireworks displays	1C018.j, 1C992.k
Fissile materials, special or other	0C002
Flame towers, UF ₆ production	0B003.b.1
Flanges, vacuum	2B999.k
Flares, non-irritant smoke	1A984
Flash discharge X-ray generators	3A201.c
Flexal (South American haemorrhagic fever)	1C351.a.29
Flexible rotor centrifugal balancing machines	2B229.a
Flexible sensors for hydrophones	6A001.a.2.a.1
Flexible nozzles, thrust vector control sub-system	9A106.c
Flight management system integration technology	7E104
Flight control servo valves	9A106.e
Flight control systems for missiles	7A116
Flight control systems – software	7D003.e
Flight instrument systems, integrated	7A103.b
Flight instrument trainer, military	9A018.f
Flight control system development technology	7E004
Flight control actuator technology	7E004.a.5
Flow-forming machines	2B009
Flow-forming machines	2B109
Flow-forming machines	2B209
Flow-forming machines	2B999i
Fluid energy mills	1B119
Fluoride compounds (bulk)	6C994.a.1
Fluoride glass (bulk)	6C994.a.2
Fluorinated silicone fluid	1C006.b.2
Fluorinated compounds, components	1A001
Fluorinated compounds, unprocessed	1C009
Fluorinated phosphazene elastomers	1C009.c
Fluorinated hydrocarbon polymers	0C201
Fluorinated polyimide	1C009.b
Fluorinating equipment, UF ₅ to UF ₆	0B001.h.3
Fluorination & hydrofluorination screw and fluid beds, UF ₆ production	0B003.b.1
Fluorine	1C999.f
Fluorine production (electrolytic cells)	1B225
Fluorocarbon electronic cooling fluid development, production, or use technology	1E994
Fluorocarbon electronic cooling fluids	1C006.d
Fluorophosphate glass	6C004.e
Fluorocarbon electronic cooling fluids	1C006.d
Fluxgate magnetometer technology	6E003.f
Fly cutting machines	2B001.b.4, 2B992.b
Fly-by-light flight control system software	7D003.e
Fly-by-wire flight control system software	7D003.e
Fly-by-wire systems for missiles	7A116
Fly-by-wire control system technology	7E004.b
Foam, syntactic for underwater use (in any stage of manufacturing)	8C001 or 8A002.a.4

Description	ECCN Citation
Foam mirror structures, lightweight	6A004.a.3
Focal plane arrays, direct view	6A002.c.2
Focal plane arrays, linear & 2D	6A002.a.3
Focal plane arrays, space qualified	6A002.e
Focal-plane array performance determining equipment	3B992.b.4.c
Fogging or spraying systems, specially designed for fitting to aircraft, "lighter than air vehicles," or UAVs"	2B352.h.1
Foot & mouth disease virus	1C352.a.4
FPGA's (Field programmable gate arrays)	3A001.a.7
FPLA's (Field programmable logic arrays)	3A001.a.8
Framing cameras, electronic type	6A203.b.2
Framing cameras, mechanical	6A203.a.1
Framing tubes & solid state imaging devices	6A203.b.3
Framing cameras, electronic type	6A003.a.4
Francisella tularensis	1C351.c.9
Free electron laser magnet wiggler manufacturing or inspection equipment	6B995.a.1
Free electron laser photo injector manufacturing or inspection equipment	6B995.a.2
Freeze drying equipment, steam sterilizable	2B352.e
Freon and chilled water cooling systems	1B999.d
Frequency agile (frequency hopping) radio equipment	5A001.b.3
Frequency agile systems	5A002.a.5
Frequency agile tubes	3A001.b.1
Frequency hopping development technology	5E001.b.4
Frequency analyzers (signal analyzers)	3A002.c.1
Frequency changers	3A999.a
Frequency changers (converters or inverters)	3A225
Frequency changers (converters or inverters)	0B001.c.11
Frequency extenders, mixers/converters	3A001.b.7
Frequency network analyzers	3A002.e
Frequency standards, atomic	3A002.g
Frequency synthesized signal generators	3A002.d
Frequency synthesizer, electronic assemblies	3A001.b.11
Fuel oils	1C980
Fuel elements, (irradiated) reprocessing plant & equipment	0B006
Fuel element handling equipment, for nuclear reactors	0A001.b
Fuel element fabrication plant, for nuclear reactors	0B005
Fuel element chopping or shredding machines	0B006.a
Fuel cell air independent power systems	8A002.j
Full Authority Digital Electronic Engine Control software	9D003
Functional (truth table) testing equipment, for integrated circuits	3B002.b
Fungi, human and zoonotic pathogens and "toxins"	1C351.e
Fungi, plant pathogens	1C354.b
Furnaces	2B226
Furnaces, Chemical Vapor Deposition (CVD), other than those controlled by 2B005.a, designed or modified for the densification of carbon-carbon composites	2B105
Furnaces	2B227
Fused silica glass	6C004.e
GaAs photocathodes	6A002.a.2.a.3.b
GaNAs photocathodes	6A002.a.2.a.3
Gallium organo-metallic compounds	3C003
Gallium III/V compound substrates, hetero-epitaxial grown-multi-layer	3C001.c
Gallium nitride (GaN) "substrates", ingots, boules, or preforms of those materials	3C005
Gallows	0A981
Gas blowers (positive displacement/centrifugal/axial flow)	0B001.d.3
Gas centrifuge rotor assembly equipment	2B228.a
Gas blowers, axial flow/centrifugal/positive displacement/turbo	0B001.b.2.a
Gas krytron tubes	3A228.a
Gas masks	1A004, 1A995
Gas centrifuge isotope separation plant	0B001.a.2
Gas centrifuge plant auxiliary equipment	0B002
Gas centrifuge rotor balancing equipment	2B229
Gas, manufactured, synthetic or natural liquid produced or derived from Naval Petroleum Reserves	1C984
Gas centrifuge isotope separation equipment & components	0B001.c
Gas centrifuges	0B001.c.1

Description	ECCN Citation
Gas discharge & ion lasers	6A005.a
Gas lasers	6A005.a
Gas monitoring systems, toxic	2B351
Gas turbine aeroengines, civil non-certified/supersonic	9A001
Gas turbine blade, manufacturing or measuring equipment	9B001
Gas turbine blade technology	9E003.a
Gas turbine blades, vanes or tip shroud casting equipment, tooling or fixtures	9B991
Gas turbine brush seal production/test equipment	9B003
Gas turbine components, solid state joining equipment	9B004
Gas turbine engine development systems/instrumentation	9B002
Gas turbine engine development control systems or instrumentation	9B002
Gas turbine engine propulsion systems assemblies/components	9A003
Gas turbine engine technology	9E003
Gas turbine engine development and use software	9D004
Gas turbine engines, parts and components, not controlled by 9A001 or 9A101	9A991
Gas turbine engines & assemblies/components, marine	9A002
Gas turbine test/flow modeling software	9D004.a
Gas turbine (aero engine) test software	9D004.b
Gaseous diffusion barriers, UF ₆	0B001.b.3
Gaseous diffusion housings, UF ₆	0B001.b.4
Gaseous diffusion isotope separation equipment & components	0B001.b
Gaseous diffusion isotope separation plant	0B001.a.1
Gaseous diffusion plant auxiliary equipment	0B002
Gaskets, made from fluoroelastomers	1A001.c
Gaskets, aircraft/aerospace use	1A001.a
Gaskets, vacuum	2B999.k
Gate silicon intensifier target (SIT) videcon tubes	6A203.b.3.b
Gateways & bridges	5A991.b.4.b
GDMS (Glow discharge mass spectrometers)	3A233.b
Gear honing, shaving, grinding, cutting, and finishing machines	2B003
Gearmaking and/or finishing machinery not controlled by 2B003	2B993
Generator systems, neutron	3A231
Generators and other equipment for nuclear plants	2A290
Generators, digital time delay	3A999.e1
Generators, high-current pulse for detonators	3A229
Generators, high-speed pulse	3A230
Generators, marx	3A999.c
Generators, portable electric	2A994
Genetically-modified microorganisms	1C353
Germanium, hetero-epitaxial grown multi-layer substrates	3C001.b
Gimbals, optical control	6A004.d.3
Glass fiber or filamentary materials	1C210.b
Glass fiber, for optical communications	5A001.c.1
Glass matrix reinforced composite materials	1C007.f
Glass preforms, for optical fiber production	5C991
Glass Windows, nuclear radiation shielding	1A227
Glass, high homogeneity	6C004.e.3
Global positioning system (GPS) equipment & components	7A005, 7A105, 7A994
Glove boxes	0B999
Gloves, protective	1A004, 1A995
Glow discharge mass spectrometers (GDMS)	3A233.b
Goat pox virus	1C352.a.5
Gold (Au) metal vapor lasers	6A005.b
GPS equipment, other than those of 7A005	7A105
GPS (Global positioning system) equipment/components	7A005
Gradiometers & components, gravity	6A007.c
Gradiometers & components, gravity	6A107
Gradiometers & components, magnetic	6A006
Graphics accelerators or coprocessors	4A994.g
Graphics accelerators or graphics coprocessors	4A003.d
Graphics accelerator development or production technology	4E993.a
Graphite, fine grain recrystallized bulk	1C107.a
Graphite, bulk	1C107.a
Graphite, pyrolytic or fibrous reinforced	1C107.b

Description	ECCN Citation
Graphite, nuclear grade, not intended for use in a nuclear reactor	1C298
Graphite, nuclear grade, intended for use in a nuclear reactor	0C005
Gravimeters (Gravity meters) & components, gravity	6A007.a
Gravimeters (Gravity meters) & components, gravity	6A007.b
Gravimeters (Gravity meters) & components, gravity	6A107
Gravity meter (gravimeters) products & calibration equipment	6B007
Gravity meters	6A997
Gravity gradiometers & components	6A007.c
Gravity meters (gravimeters) & components	6A007.b
Gravity meters (gravimeters) & components	6A007.a
Gravity meters (gravimeters) software	6D003.g
Gravity gradiometers & components	6A107
Gravity meters (gravimeters) & components	6A107
Gravity gradiometer software	6D003.g
Greases	1C980
Grenades, non-irritant smoke	1A984
Grinding machines (CNC)	2B991.d.1
Grinding machines, gear	2B003
Grinding machines	2B201.b
Grinding machines	2B001.c
Guanarito (South American haemorrhagic fever)	1C351.a.29
Guanidine nitrate	1C011.c, 1C018.m
Guidance sets usable in missiles	7A117
Guillotines	0A981
Gun barrel rifling and broaching machines and tools therefor	2B018.e, f
Gun barrel trepanning machines	2B018.g
Gun boring and turning machines	2B018.h
Gun honing machines	2B018.i
Gun, immobilization	0A985
Gun jump screw lathes	2B018.j
Gun rifling machines	2B018.k
Gun, shotgun	0A984
Gun straightening presses	2B018.l
Gun, stun	0A985
Gyro dynamic balance stations	7B003, 7B101
Gyro tuning test stations	7B003, 7B101
Gyro run-in/motor test stations	7B003, 7B101
Gyro evacuation/fill stations	7B003, 7B101
Gyro-astro compasses & devices	7A104
Gyros & gyro components	7A102
Gyros	7A002
Gyroscope production/manufacturing/test equipment	7B003
Hafnium oxide (hafnia) (HfO ₂) made/coated crucibles	2A225.a.5
Hafnium metal, alloys & compounds	1C231
Hafnium fluoride (HfF ₄) glass	6C004.e
Hair type absorbers	1C001.a Note 1.a
Handcuffs	0A982
Handling equipment for propellants and their constituents	1B115
Handling systems, semiconductor wafers	3B001.e
Hantaan virus	1C351.a.6
Hanzalova (Central European tick-borne encephalitis virus)	1C360.a.1.a.2
Hard surface coated substrates	3B991.b.2.b.1
Harnesses, complete	9A992
Heading sensors, towed hydrophones	6A001.a.2.b.4
Heading sensors	6A001.a.2.d
Heat exchangers for use in nuclear reactors	0A001, 2A290.a
Heat exchangers	0A001.i
Heat exchangers	0B001.b.5
Heat exchangers & condensers	2B350.d
Heat exchangers (aerodynamic separation)	0B001.d.5
Heat exchangers, cryogenic	0B001.d.7.a
Heat pipe cooled mirrors	6A005.e.1
Heat source materials	1C012
Heavy water (Deuterium oxide)	0C004

Index 20

Description	ECCN Citation
Heavy water concentration equipment	0B004.b.4
Heavy water production plant, equipment & components	0B004
Helicopter system development technology	7E004.c
Helicopter power transfer system technology	9E003.d
Helium, enriched	1C232
Helium refrigeration units	1B231.b.1
Helium	1C980
Helium-3	1C232
Helix Tubes	3A001.b.1.a.4
Helmet, military	0A018.f
Helminthosporium oryzae (Cochliobolus miyabeanus)	1C354.b.2
Hemishell dimensional inspection equipment/systems	2B006.c
Hendra virus (Equine morbillivirus)	1C351.a.29
Herpes B virus (Cercopithecine herpesvirus 1)	1C360.a.1.b
Hetero-epitaxial grown multi-layer substrates	3C001
Hetero-structure semiconductor technology	3E003.b
High energy storage capacitors	3A001.e.2
High voltage power supplies for ion sources	0B001.j.5
High power electron beam guns	0B001.g.1
High power pulse shaping networks	3A999.c
High voltage capacitors	3A999.c
High voltage triggers	3A999.c
High-efficiency stage containers	0B004.b.2.b
High-pressure ammonia-hydrogen exchange towers	0B004.b.2.a
High-speed pulse generators	3A230
High-speed cameras	6A003
High-vacuum service equipment	2B999.k
High-velocity gun systems	2B232
HIPS (Hot Isostatic Presses)	2B204
HIPS (Hot Isostatic Presses)	2B004
HIPS (Hot Isostatic Presses)	2B104
Hogcholera virus (swine fever virus)	1C352.a.7
Holding or storage vessels, critically safe & resistant to nitric acid	0B006.e
Hollow cylinder centrifugal balancing machines	2B229.b
Holographic sights	0A987
Honing machines, gear	2B003
Honing machines, gear	2B003
Hopping code generation capability, equipment with	5A002.a.5
Horses by sea	0A980
Hot isostatic presses (HIPS)	2B204
Hot isostatic densification technology/data, Al/Ti/Superalloys	2E003.b.2.d
Hot isostatic presses (HIPS)	2B004
Hot cap sealers (semi-automatic or automatic) for ceramic microcircuit packages	3B991.b.3.c
Hot cell manipulators	2B225
Hot cells	0B999
Hot isostatic presses (HIPS)	2B104
Housing/recipients, centrifuge	0B001.c.12
Hovercraft	8A001
HT-2 toxin	1C351.d.16
HTPB (Hydroxy-terminated polybutadiene) propellant additive	1C111.b.2
Hull penetrators/connectors, fiber optic	8A002.c
Human pathogens and "toxins"	1C351
Hybrid integrated circuits	3A001.a Note 2
Hybrid rocket propulsion systems	9A009
Hybrid computers & components	4A001
Hybrid computers and electronic assemblies, and specially designed components therefor	4A994.k
Hybrid computers	4A102
Hybrid computer electronic systems/electronic assemblies	4A001.a
Hybrid rocket motors and components	9A109
Hydraulic fluids	1C006.a
Hydraulic fluids	1C980
Hydraulic fluids	1C996
Hydraulic forming equipment	2B999.b
Hydraulic pressing, direct-acting technology	2E003.b.1.c

Description	ECCN Citation
Hydraulic stretch-forming machines and dies technology	2E003.c
Hydrides of Antimony, arsenic & phosphorus	3C004
Hydrocarbon oils, synthetic	1C996
Hydroclave temperature, pressure or atmosphere regulation technology	1E103
Hydrodynamic calculations/modeling, software for	0D999.c
Hydrofoil vessels	8A001.h
Hydrofoils	8A002.m
Hydrogen	1C980
Hydrogen cyanide (74–90–8)	1C355.b.1.c
Hydrogen distillation plant	0B004.a.3
Hydrogen fluoride	1C350.d.7
Hydrogen fluoride (HF) lasers	6A005.d.5.a
Hydrogen isotope storage & purification systems	1B231.b.2
Hydrogen refrigeration units	1B231.b.1
Hydrogen sulphide-water exchange tray columns	1B229
Hydrogen sulphide-water exchange plant	0B004.a.1
Hydrogen sulphide gas compressors	0B004.b.1.b
Hydrogen sulphide-water exchange equipment & components	0B004.b.1
Hydrogen-cryogenic distillation columns	1B228
Hydrophone arrays, towed acoustic	6A001.a.2.b
Hydrophone arrays (towed) acoustic data processing source code	6D003.a.2
Hydrophones	6A001.a.2.a
3-Hydroxy-1-methylpiperidine	1C350.d.8
Hydroxy-terminated polybutadiene (HTPB)	1C111.b.2
Hypr (Central European tick-borne encephalitis virus)	1C360.a.1.a.3
ICP/MS (Inductively coupled plasma mass spectrometers)	3A233.a
III/V and II/VI semiconductor materials purifying or processing equipment	3B991.b.1.b
III/V compound substrates, gallium or indium	3C001.c
Igniters	1C018.e, 1C992.f
Image enhancement, digital equipment	4A003
Image enhancement equipment	4A994.f
Imaging devices	6A002
Imaging device manufacturing equipment and systems	3B991.b Note
Image intensifier tubes & components	6A002.a.2
Image intensifier tubes, direct view	6A002.c.1
Image transfer equipment	3B991.b.2
Imaging cameras	6A003.b
Imaging cameras with focal plane arrays of 6A002a.3	6A003.b.4
Imaging cameras with image intensifiers of 6A002a.2.a	6A003.b.3
Imaging devices	6A203.b.3
Imaging equipment, visible & infrared	6A002.c
Imaging sensors, multispectral and monospectral	6A002.b
Imaging systems, underwater electronic	8A002.f
Immobilization guns and projectiles	0A985
Immunotoxins and vaccines	1C991
Impregnated cathodes for electronic tubes	3A001.b.1.c
Imprint lithography equipment	3B001.f.2
Improvised explosive devices (specially designed or modified disposal equipment, components, and accessorise)	1A006
(Radio Controlled) Improvised Explosive Devices (RCIED) activation devices	5A001.h
IMU platform balance fixture	7B003, 7B101
IMU platform tester	7B003, 7B101
IMU stable element handling fixture	7B003, 7B101
Incinerators designed to destroy the chemicals controlled by 1C350	2B350.j
Independent (air) power systems underwater	8A002.j
Indicator heads designed/modified for use with balancing machines in 2B119.a	2B119.b
Indium organo-metallic compounds	3C003
Indium III/V compounds substrates	3C001.c
Induction coil magnetometers	6A006.c
Induction furnace, controlled environment inert gas	2B226
Induction furnace, vacuum	2B226
Inductively coupled plasma mass spectrometers (ICP/MS)	3A233.a
Industrial process control hardware/systems designed for power industries	1B999.c

Index 22

Description	ECCN Citation
Industrial process control hardware/systems designed for power industries controlled by 1B999, software for	1D999.a
Inert gas environment induction furnaces	2B226
Inertial Measurement Equipment for Azimuth, Heading, or True North determination, and specially designed components therefor	7A003.c
inertial measurement equipment	7A003
inertial measurement unit tester (IMU module)	7A003, 7B003, 7B101
Inertial navigation, systems/equipment/components	7A103.a
Inertial navigation, systems/equipment/components	7A003
Inertial navigation systems not controlled by 7A003 or 7A103	7A994
Inertial navigation system software, source code	7D002
Inertial reference Systems (IRS)	7A003.c
Inertial sensors, optical fiber	6A002.d.3.a
Inflatable boats and components	8A992.f
Inflation cartridges	8A992.i
Influenza virus (Reconstructed replication competent forms of the 1918 pandemic influenza virus containing any portion of the coding regions of all eight gene segments)	1C360.a.1.c
Information security equipment, software for the development, production or use of	5D992
Information security technology support software	5D002.b
Information security equipment and components, n.e.s.	5A992
Information security software	5D002
Information security systems/equipment/devices/components	5A002
Information security technology	5E992
Information security – test, inspection, and production equipment	5B002
Infrared absorption analyzers	0B004.b.4.d
Infrared detectors , industrial space qualified	6A002.a.1
Infrared sensors, industrial	6A002.c
Infrared viewers (police model)	9A980
Inhibited red fuming nitric acid (IRFNA)	1C111.a.3.e
Initiation systems, single or multipoint (electric)	3A232.b
Injector (free electron laser photo) manufacturing or inspection equipment	6B995.a.2
Inorganic overlay coating application technology	2E003.f
Inorganic chemicals listed in Supp. No. 1 to part 754 produced or derived from the Naval Petroleum Reserves	1C980
Inorganic fibers & filamentary materials	1C010.c
Input/output control units	4A994.e
Inspection equipment (linear-angular for hemishells)	2B006.c
Inspection equipment for composite materials	1B001.f
Inspection machines (dimensional), devices or systems, other than those controlled by 2B006	2B206
Instruction generators for machine tools – technology	2E003.d
Instrumentation for gas turbine development	9B002
Instrumentation for wind tunnels	9B005
Instrumentation systems, inertial navigation	7A003
Instrumentation cameras	6A003.a
Integrated circuit assembly equipment	3B991.b.3
Integrated circuit test equipment, microwave	3B002.c
Integrated circuit test equipment, capable of performing functional (truth table) testing	3B002.b
Integrated circuit, masks	3B001.g
Integrated circuits, compound semiconductor	3A001.a.11
Integrated circuits, custom	3A001.a.10
Integrated circuits, general purpose	3A001.a
Integrated circuits, microwave	3A001.b.2
Integrated circuits, radiation hardened	3A001.a.1
Integrated circuits and assemblies manufacturing equipment and systems	3B991.b
Integrated circuit and assembly testing equipment	3B992.b.4.b
Integrated circuit computer-aided-design (CAD) software	3D003
Integrated circuits and assemblies inspection or testing equipment and systems	3B992.b
Integrated flight instrument systems/components	7A103.b
Integrated Navigation Systems, designed or modified for use in missiles	7A103.c
Integrated Services Digital Network technology	5E991
Integrated system source code, avionic/mission systems	7D003.c
Integration software for expert systems	2E003.e
Integration technology for flight management systems	7E104
Intercepting devices, communications	5A980

Description	ECCN Citation
Interconnect equipment (Computer)	4A003.g
Interconnection equipment	3B991.b.1.1
Interferometers, velocity (VISARs)	6A225
Interlacing machines	1B001.c
Intermediate amplifier equipment	5A991.b Note a.3
Interstages for missiles	9A117
Intrinsic magnetic gradiometers	6A006.c.3
Inverse synthetic aperture radar (ISAR)	6A008.d
Inverters (Frequency changers or converters)	3A225
Inverters (Frequency changers or converters)	0B001.c.11
Ion beam equipment for mask making/semiconductor devices	3B001.f.2
Ion beam equipment for projection image transfer	3B991.b.2.g
Ion beam sensitive resist materials	3C002.b
Ion beam system, manufacturing, repairing, physical layout analysis and testing of masks or semiconductor devices	3B992.b.6
Ion collector plates, Uranium fluoride resistant	0B001.j.2
Ion implantation equipment	3B001.b
Ion implantation equipment	3B991.b.1.g
Ion implantation production equipment	2B005.b
Ion lasers	6A005.a
Ion or laser beam lithography mask or reticle fabrication equipment	3B991.b.2.d.2
Ion plating production equipment	2B005.g
Ion sources, single or multiple	0B001.j.1
Ion sources, mass spectrometers (UF ₆ enrichment plant)	0B002.g
Ion-enhanced diffusion equipment	3B991.b.1.g
Ion-exchange columns	0B001.f.2
Ion-exchange isotope separation plant	0B001.a.5
Ion-exchange processing equipment	0B006.c
Ion-exchange reflux systems	0B001.f.3
Ion-exchange resins, fast acting	0B001.f.1
Ion-exchange separation process equipment & components	0B001.f
ISDN development/production technology	5E991
ISDN (integrated services digital network) switching and signaling systems	5A991.c.2
Isolated live cultures – see Cultures	
Isolators capable of use with biological agents	2B352.f.2
Isostatic presses, hot	2B104
Isostatic presses, hot	2B204
Isostatic presses, hot	2B004
Isostatic presses, n.e.s.	2B999.a
Isotope separation plant, systems, equipment & components	0B001
Isotope separation process, molecular laser	0B001.h
Isotope separation process, chemical exchange	0B001.e
Isotope separation process, atomic vapor laser	0B001.g
Isotope separation process, electromagnetic	0B001.j
Isotope separation process, plasma	0B001.i
Isotope separators, electromagnetic	1B226
Isotope separation process, gas centrifuge	0B001.c
Isotope separation process, ion-exchange	0B001.f
Isotope separation plant, auxiliary systems, equipment, components	0B002
Jamming equipment	5A001.f
Japanese encephalitis virus	1C351.a.19
Jet engine lubricating oil	1C980
Jet vane, thrust vector control sub-systems	9A106.c
Jet engines/components, pulse	9A111
Jigs and fixtures for use in the manufacture of firearms, ordnance, and other stores and appliances for land, sea, or aerial warfare	2B018.n
Joule-Thomson self-regulating minicoolers	6A002.d.2.b.6
Junin virus	1C351.a.7
Kerr or Pocket cells, electro-optical shuttering	6A203.b.3.c
Kick motors	9A004
Krytron tubes, gas	3A228.a
Kumlinge (Central European tick-borne encephalitis virus)	1C360.a.1.a.4
Kyasanur Forest virus	1C351.a.20
Laboratories (mobile), crime science	9A980

Description	ECCN Citation
Laminate or composite development software	1D002
Laminates & composite structures, organic metal or carbon	1A002
Laminates, rockets/propulsion systems/space vehicles	9A110
Land inertial navigation equipment	7A003
Land-based gravity meters production equipment	6B007
Laser based linear position feedback units	2B008.a
Laser based measuring instruments	2B006.b.1.c
Laser beam cutting machines (CNC)	2B001.e.1.c
Laser beam equipment for mask making/semiconductor devices	3B001.f.2
Laser beam lithography mask or reticle fabrication equipment	3B991.b.2.d.2
Laser beam systems, for probing semiconductor devices	3B992.b.5
Laser communication technique technology	5E001.b.2
Laser diagnostic equipment	6A005.f.2
Laser diodes	6A005.d.1
Laser diodes designed for telecommunication	5A991.b Note b.4
Laser gyro mirror characterization equipment	7B102
Laser isotope plant, systems, equipment & components	0B001.g
Laser isotope separation systems, equipment & components	0B001.h
Laser pointing devices for use on firearms	0A987
Laser radar altimeters	7A106
Laser radar or Light Detection & Ranging (LIDAR) equipment	6A008.j
Laser radar systems	6A108
Laser ring gyro test equipment	7B002
Laser, technology	6E003.e
Laser welding machines	2B999.c
Lasers	6A005
Lasers	6A205
Lasers	6A995
Lasers for direct write on wafers	3B991.b.2.h
Lasers or laser systems, uranium isotope separation	0B001.h.6
Lasers or laser systems, uranium isotope separation	0B001.g.5
Lassa fever virus	1C351.a.8
Lathes (CNC)	2B001.a
Launch support equipment	9A115
Launch vehicle components/structures	9A010
Leg irons	0A982
Lenses for radiation hardened TV cameras	6A203.c
Lidar equipment (Laser radar)	6A008.j
Life jackets	8A992.i
Lift fans, for surface effect vessels	8A002.l
Light gas guns(Multistage) systems	2B232
Light systems, Stroboscopic	8A992.c
Light systems, underwater	8A002.g
Light systems, underwater	8A002.d.2
Light-weight reduction gearing, marine transmissions	8A002.o.1.d
Lights, underwater	8A992.j
Lights, search	0A018.a
Lightweight composite or foam mirror structures	6A004.a.3
Lightweight monolithic mirrors	6A004.a.2
Lightweight turbofan/turbojet engines	9A101
Line terminating equipment	5A991.b Note a.2
Linear voltage displacement transformer (LVDT) based instruments	2B006.b.1.b.1
Linear position feedback units or sensors	2B008.a
Linear measuring equipment/instruments	2B006.b.1
Linear focal plane arrays	6A002.a.3
Linear-angular inspection equipment for hemishells	2B006.c
Liquid oxidizers, various nitrous oxides	1C111a.3
Liquid or water jet cutting machines (CNC)	2B001e.1.a
Liquid Uranium handling systems (cooled crucibles)	0B001.i.5
Liquid lasers	6A005.c
Liquid propellant tanks	9A103
Liquid rocket propulsion systems & components	9A106
Liquid rocket propulsion systems & components	9A006
Liquid rocket propulsion systems	9A005

Description	ECCN Citation
Liquid propellant control systems	9A106.d
Liquid propellant rocket engines	9A105
Liquid-liquid exchange columns, for lithium amalgams	1B233.b.1
Lithium metal, alloys, compounds, mixtures, products or devices	1C233
Lithium isotope separation facilities, plant and equipment	1B233
Lithium amalgam electrolysis cells	1B233.b.3
Lithium amalgam pumps	1B233.b.2
Lithograph templates	3B001.i
Lithography equipment, imprint	3B001.f.2
Lithography equipment, mask making for semiconductor wafer-processing	3B001.f
Lithography mask or reticle fabrication equipment	3B991.b.2.d.2
Lithography software	3D003
Location & object detection systems, acoustic	6A001.a.1.b
Logic arrays, field programmable (FPLA)	3A001.a.8
Logic processors and assemblies	4A003
Louping ill virus	1C351.a.21
Low Light Level (LLL) camera software	6D003
Lubricating materials	1C006.b
Lubricating oil	1C980
Lumpy skin disease virus	1C352.a.16
LVDT (Linear voltage displacement transformer) based instruments	2B006.b.1.b.1
Lymphocytic choriomeningitis virus	1C351.a.9
Lyssa virus	1C352.a.8
Machetes	0A988
Machine tools, E-beam	2B001.e.1.b
Machine tools, laser	2B001.e.1.c
Machine tools, numerically controlled	2B001
Machine tools, numerically controlled	2B201
Machine tools, numerically controlled and using a Magnetorheological finishing (MRF) process.	2B002
Machine tools, numerically controlled, optical finishing	2B002
Machine tools, water/other liquid jet	2B001.e.1.a
Machine tool assemblies, units or inserts	2B998
Machine tool components and assemblies for equipment controlled by 2B006 & 2B007	2B008
Machine tool cutting tools	2B008
Machine tools for generating optical quality surfaces	2B992
Machine tools for grinding (CNC)	2B001.c
Machine tools for grinding (CNC)	2B201.b
Machines for milling (CNC)	2B001.b
Machines for milling (CNC)	2B201.a
Machine tools for turning, grinding, and milling	2B991.d.1
Machines for turning (CNC)	2B001.a
Machine tool instruction generators – development technology	2E003.d
Machine tool rotary position feedback units	2B008.b
Machine tool spindles	2B008.c
Machining centers (CNC)	2B201
Machining centers (CNC)	2B001
Machupo virus	1C351.a.10
Magnaporthe grisea (pyricularia grisea/pyricularia oryzae)	1C354.b.6
Magnesium (high purity)	1C228
Magnesium alloy, powder or particulate form	1C002.b.1.e
Magnesium alloys	1C002.a.2.e
Magnesium, metal and alloys of	1C011.a
Magnesium oxide (MgO) made or coated crucibles	2A225.a.6
Magnesium metal particulate	1C111.a.2.d
Magnet power supplies, high power (direct current)	0B001.j.6
Magnetic alloy strips	1C003.c
Magnetic anomaly detection software	6D003.f.2
Magnetic bearings (suspension)	2A001.c
Magnetic bearings (suspension)	0B001.c.4
Magnetic compensation systems for magnetic and underwater electric field sensors	6A006.d
Magnetic compensation systems software	6D003.f.1
Magnetic confinement CVD equipment	3B001.d.1.a
Magnetic confinement plasma dry etching equipment	3B001.c.1.a

Description	ECCN Citation
Magnetic and Electric Field Sensors “software”	6D003.f
Magnetic gradiometers	6A006.c
Magnetic gradiometers, intrinsic	6A006.c.2
Magnetic hard disk drive development or production technology	4E993.c
Magnetic metals	1C003
Magnetic pole pieces	0B001.j.4
Magnetically enhanced, sputtering equipment	3B991.b.1.f
Magnetometers	6A006
Magnetometers not controlled by 6A006	6A996.a
Magnetometer systems	6A006
Magnetostrictive alloys	1C003.b
Malignant catarrhal fever virus	1C360.b.1.d
Mandrels for rotor assembly, bellows forming	2B228.a
Mandrels, bellows-forming	2B228.c
Mandrels (precision) for filament winding machines	1B201
Manganin gauges, pressure	6A226.a
Manifolds, vacuum	0B002.f.1
Manipulators, remote	2B225
Manipulators, for submersibles	8A002.i
Manned, tethered submersible vehicles	8A001.a
Manned, untethered submersible vehicles	8A001.b
Manufactured gas and synthetic natural gas produced or derived from Naval Petroleum Reserves	1C984
Maraging steel	1C116
Maraging steel.	1C216
Marburg virus	1C351.a.11
Marine acoustic systems	6A001.a
Marine boiler	8A018.b.4
Marine engines and parts (both inboard and outboard, n.e.s.)	8A992.g
Marine gas turbine engines	9A002
Marine, terrestrial acoustic equipment	6A991
Marx generators	3A999.c
Mask, gas	1A004, 1A995
Mask or reticle altering holders or equipment	3B991.b.2.d.3
Mask or reticle fabrication equipment	3B991.b.2.d
Mask or reticles or pellicles, stored program controlled inspection equipment	3B991.b.2.e
Mask software	3D003
Masks	8A992.i
Masks, integrated circuits of 3A001	3B001.g
Masks, mask substrates, mask-making equipment	3B991.b.2
Mass spectrometers & ion sources (UF ₆ enrichment plant)	0B002.g
Mass spectrometers & ion sources (UF ₆ enrichment plant)	3A233
Mass spectrometers, n.e.s.	3A999.b
Materials for reduced electromagnetic reflectivity	1C101
Matrix, organic	1A002.b
MCT (HgCdTe) crystals & epitaxial wafers	6C002.b
Measurement equipment, radiation	1A999.a
Measurement equipment, underwater velocity	6A001.b
Measuring instruments or systems, dimensional	2B006
Measuring and analysis equipment	3B992.b.2
Mechanical cameras, framing	6A003.a.1–3
Media access units	5A991.b Note a.12
Melting furnaces	2B227.b
Menangle virus	1C360.b.1.e
Mercury amalgam pumps	1B233.b.2
Mercury cadmium telluride crystals & epitaxial wafers	6C002.b
Metal alloy powders or particulate form	1C002.b
Metal alloy particulate	1C111.a.2
Metal alloys	1C002.a
Metal alloys, aluminum or titanium	1C202
Metal alloys, beryllium	1C230
Metal alloys, hafnium	1C231
Metal alloys, lithium	1C233
Metal alloys, powder and material production systems and components	1B002
Metal alloys, tungsten	1C226

Description	ECCN Citation
Metal alloys, tungsten or molybdenum	1C117
Metal alloys, zirconium	1C234
Metal alloys, zirconium, beryllium, boron, magnesium	1C111.a.2.e
Metal coated fiber preforms	9A110
Metal coated fiber preforms for fiber prepregs in 9C110	9C110
Metal or carbon matrix	1A002.b
Metal organic chemical vapor deposition (MOCVD) reactors	3B001.a.2
Metal-organic compounds, aluminum/gallium/indium	3C003
Metal particulate	1C011
Metal powder production equipment	1B102
Metal vapor lasers	6A005.b
Metal working process tools, die & fixture technology	2E003.b.1
Metal working manufacturing processes technology	2E003.b
Metallo-organic or polymeric materials	1C007.e
Metallurgical melting & casting furnaces	2B227
Metals or carbon coated fibers	1C010.e
Metals with high initial relative (magnetic) permeability	1C003.a
Methyl centralites	1C018.a
Methyldiethanolamine (105–59–9)	1C355.b.2.b
Methyl phosphinyl dichloride	1C350.b.15
Methyl phosphinyl difluoride	1C350.b.16
Methyl phosphonous dichloride	1C350.b.15
Methyl phosphonous difluoride	1C350.b.16
Methyl phosphonyl dichloride	1C350.b.17
Methyl phosphonyl difluoride (DF)	1C350.a.3
Methyl benzilate	1C350.d.9
Microbiological disposal technology	1E351
Microchannel plates, image intensifier tubes	6A002.a.2
Microcomputer microcircuits	3A001.a.3
Microcontroller microcircuits	3A001.a.3
Microcyclus ulei (syn. Dothidella ulei)	1C354.b.3
Microcystins (Cyanginosin)	1C351.d.4
Microfluorination ion sources	3A233.f
Micromachined Angular Rate Sensors	7A994
Microorganisms, genetically modified	1C353
Microprocessor microcircuits	3A001.a.3
Microprocessor microcircuits above 530 MTOPS development/production technology	3E002.g
Microwave amplifiers, solid state	3A001.b.4
Microwave frequency extenders, mixers/converters	3A001.b.7
Microwave integrated circuit test equipment	3B002.c
Microwave integrated circuits	3A001.b.2
Microwave modules	3A001.b.2
Microwave Monolithic Integrated Circuit (MMIC) power amplifier technology	5E001.d and .e
Microwave power modules (MPM)	3A001.b.9
Microwave power sources and antennae	0B001.i.3
Microwave transistors (discrete)	3A001.b.3
Microwave test receivers	3A002.f
Microwave wave components	3A001.b
MIG welders	2B999.d
Military explosive production equipment	1B018.a
Military helmet	0A018
Military vehicles	9A018
Military commodities	0A919
Millimeter wave components	3A001.b
Milling machines, (CNC) with two or more coordinated axes	2B001.b
Milling machines, (CNC) with two or more coordinated axes	2B201.a
Milling machines (CNC)	2B991.d.1
Mills, fluid energy	1B119
Mining equipment	2B999.h
Mirror assemblies/segments, space assembly	6A004.c.3
Mirror characterization equipment, reflectometers	7B102.b
Mirror control equipment, phased array/segment	6A004.d.4
Mirror structures, lightweight foam or composite type	6A004.a.3
Mirrors, actively cooled or heat pipe cooled	6A005.e.1

Description	ECCN Citation
Mirrors, beam steering	6A004.a.4
Mirrors, optical	6A005.e.2
Mirrors, optical	6A004.a
Missile engine combustion regulation devices	9A118
Missile (usable) guidance sets	7A117
Missile telemetry	5A101
Missile modeling, simulation & integration software	9D103
Mixed Oxides of Nitrogen (MON)	1C111.a.3.d
Mixers, batch	1B117
Mixers, continuous	1B118
Mixers, frequency extenders	3A001.b.7
Mobile communications equipment, assemblies and components	5A991.g
Modeccin toxin	1C351.d.17
Modeling/simulation of guidance sets, software	7D103
Modems	5A991.b.2
Modular time interval meter	3A999.e.2
Modules, microwave	3A001.b.2
Modules/assemblies, fast switching function	3A228.c
Molecular beam epitaxial growth equipment using gas sources	3B001.a.3
Molecular beam epitaxial growth equipment	3B991.b.1.e
Molecular beam mass spectrometers	3A233.e
Molecular laser isotopic separation plant	0B001.a.7
Molecular pumps	0B001.c.9
Molybdenum alloy fibers	1C010.c Note 2
Molybdenum & tungsten metals & alloys	1C117
Monel equipment including valves, piping, tanks and vessels	2B999.f
Monel plate	1C999.c
Monitoring equipment, radiation	1A999.a
Monitoring systems, toxic gas	2B351
Monitors or color displays	4A994.h
Monkey pox virus	1C351.a.12
Monolithic integrated circuits	3A001.a Note 2
Monolithic integrated circuit repair or trimming laser equipment	3B991.b.1.m
Monospectral imaging sensors	6A002.b
Motion control boards for machine tools	2B991.b
Motion simulators or rate tables	2B120
Motor stators	0B001.c.10
Multi-chamber central wafer handling systems	3B001.e
Multi-channel interval meter	3A999.e.2
Multi-data-stream processing equipment, development or production technology for	4E993.b
Multi-element detector arrays	6A002.a.3
Multi-layer hetero-epitaxial material substrates & wafers	3C001
Multi-layer masks (with phase shift layer), for integrated circuits	3B001.h
Multichip integrated circuits	3A001.a Note 2
Multilevel security capability, equipment	5A002.a.6
Multimode optical fiber & cables, high tensile strength	5A001.c.1
Multiple-seal pumps	2B350.i
Multiplex equipment	5A991.b Note a.7
Multipoint initiation systems	3A232.b
Multipoint restraint devices	0A982
Multispectral imaging sensors	6A002.b
Multistage light gas gun systems	2B232
Multi-walled piping incorporating a leak detection port	2B350.h
Murray Valley encephalitis virus	1C351.a.22
Mycoplasma capricolum, except subspecies capripneumoniae	1C360.b.2.a
Mycoplasma capricolum subspecies capripneumoniae ("strain" F38)	1C352.b.1.b
Mycoplasma mycoides capri	1C360.b.2.b
Mycoplasma mycoides subspecies mycoides SC (small colony) (a.k.a. contagious bovine pleuropneumonia)	1C352.b.1.a
N,N-diisopropyl-beta-aminoethane thiol	1C350.b.6
N,N-diisopropyl-(beta)-amino ethanol	1C350.b.8
N,N-diisopropyl-beta-aminoethyl chloride	1C350.b.9
N,N-diisopropyl-(beta)-aminoethyl chloride hydrochloride	1C350.b.7
NBC (Nuclear, biological and chemical) detection system software	1D003

Description	ECCN Citation
NBC (Nuclear, biological and chemical) detection system libraries or parametric technical databases	1E002.g
NN-Diphenylurea (unsymmetrical diphenylurea)	1C018.b
Nanocrystalline alloy strips	1C003.c
Natural uranium	0C001
Natural gas liquids and derivatives produced or derived from Naval Petroleum Reserves	1C983
Navigation, airborne communication and other avionics equipment technology	7E994
Navigation, airborne communication and other avionics software n.e.s.	7D994
Navigation direction finding equipment	7A994
Navigation systems, equipment & components, inertial	7A103
Navigation systems, equipment & components, inertial	7A003
Navigation systems, underwater sonar	7A008
NDT (non-destructive test) inspection equipment (3D)	1B001.f
NDT (non-destructive test) inspection equipment	9B007
Neodymium lasers	6A005.d.6
Neodymium lasers	6A205.f
Neptunium-237	1C012.b
Network analyzers	3A002.e
Network access controllers contained in computer equipment	4A994.i
Network access controllers contained in telecommunications	5A991.b.4.a
Neural computers/assemblies/components	4A004.b
Neural network integrated circuits	3A001.a.9
Neutron generator systems & tubes	3A231
Neutronic calculations/modeling, software for	0D999.a
Newcastle disease virus	1C352.a.9
Nickel alloy	1C002.a.2.a
Nickel alloy/powder or particulate form	1C002.b.1.a
Nickel aluminides	1C002.a.1.a
Nickel based alloys	1C002.a.1
Nickel electroplating equipment	2B999.i
Nickel metal (made from powder)	1C240
Nickel metal (made from powder metals/alloys/powders)	0C006.b
Nickel metal powders	0C006.a
Nickel powder	1C240
Nickel powder or porous nickel metal	0C006
Night vision devices and technology	6A002.a.2, 6A003.b.3, 6A003.b.4, 6A202, 6A203, 6E002, 6E101
Niobium alloys	1C002.a.2.b
Niobium alloy/powder or particulate form	1C002.b.1.b
Nipah virus	1C351.a.31
Nitrate-based	Advisory Note (a) 1C018
3-Nitrazo-1, 5 pentane diisocyanate	1C018.l
Nitric acid	1C999.e
Nitrided niobium-titanium-tungsten alloy crucibles	2A225.a.7
2-Nitrodiphenylamine	1C111.c.3, 1C018.h
Nitrogen dioxide (dinitrogen tetroxide)	1C111.a.3.b
Nitroglycerin (in medicinal form)	1C992.1
Nitroguanidine	1C011.d
P-Nitromethylaniline	1C018.i
N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethyl-2-chlorides and corresponding protonated salts	1C355.a.2.d
N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-ols and corresponding protonated salts	1C355.a.2.e
N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-thiols and corresponding protonated salts	1C355.a.2.f
N,N-Dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidic dihalides	1C355.a.2.b
Noise reduction equipment for vessels, acoustic mounts	8A002.o.3.a
Noise cancellation systems for vessels, active	8A002.o.3.b
Noise reduction systems for vessels, active	8A002.o.3.b
Non-destructive inspection equipment	1B001.f
Non-destructive test inspection equipment, rocket motor	9B007
Non-fluorinated polymeric substances	1C008
Non-fluorinated polymeric manufactures	1A003
Non-irritant smoke flares, canisters, grenades and charges	1A984
Non-linear optical materials	6C004.c
Non-planar absorbers	1C001.a Note 1.b
Non-tunable continuous wave (CW) lasers	6A005.a & 6A995.e
Non-tunable pulsed lasers	6A005.b & 6A995.d
Non-tunable solid state lasers	6A005.a and b & 6A995.f

Description	ECCN Citation
Nozzles, aerodynamic isotope separation	0B001.d.1
Nozzles, for producing pyrolytically derived materials	1B116
Nozzles, rocket motor (liquid)	9A106.b
Nuclear heat source materials	1C012
Nuclear material handling and processing equipment	2A291
Nuclear materials, facilities, and equipment software	0D001
Nuclear plant commodities, parts and accessories	2A291.d
Nuclear reactor, eddy current test equipment	2A291.d
Nuclear reactor equipment	2A291
Nuclear reactor, simulators	2A291.b
Nuclear reactor, ultrasonic test equipment	2A291.d
Nuclear reactors fuel element fabrication plant/equipment	0B005
Nuclear reactors fuel element (irradiated) reprocessing plant/equipment	0B006
Nuclear reactors, civil	0A001
Nuclear reactors & reactor components	0A001
Nuclear technology for the development, production or use of nuclear materials, facilities, and equipment	0E001
Nuclear-grade graphite	0C005
Numerical control for machine tools – software	2D002
Numerical control for machine tools – technology	2E003.d
Numerical control units for machine tools and numerically controlled machine tools, n.e.s	2B991
Numerically controlled machine tools	2B290
Numerically controlled machine tools that can be equipped with electronic devices for simultaneous contouring control	2B991.c
Object detection and location systems (acoustic)	6A001.a.1.b
Ocean salvage systems	8A001.e
Off highway wheel tractors	9A990
Oil well cartridges	1C018.f, 1C992.g
Oil, lubricating, cutting, or quenching	1C980
Oils, distillate fuel	1C980
Omsk haemorrhagic fever virus	1C351.a.23
On-highway tractors	9A990
Operating systems for real time processing equipment, software	4D993.c
Operating system software for real time processing equipment	4D993.c
Optical absorption materials, low	6C994.a
Optical components, space-qualified	6A004.c
Optical components for lasers	6A005.e
Optical components for lasers	6A004.b
Optical computers	4A004.c
Optical control equipment	6A004.d
Optical detectors, radiation hardened	6A102
Optical detectors & sensors	6A002
Optical element inspection or testing equipment and components	3B992.a
Optical element manufacturing equipment and components	3B991.a
Optical elements, aspheric	6A004.e
Optical equipment	6A005.f
Optical equipment	6B004
Optical equipment other than optical surface scattering measurement equipment	6B004.b
Optical fabrication technologies	6E003.d.2
Optical fabrication technologies	6E993.a
Optical fiber characterization equipment	5A991.b Note b.3
Optical fiber couplers or connectors for underwater use	8A002.c
Optical fiber & accessories, communications	5A001.c.1
Optical fiber & accessories, underwater use	5A001.c.2
Optical fiber preforms	6C994.b
Optical fiber preforms	5C991
Optical fibers/fiber cable, sensing	6A002.d.3
Optical fiber sensing elements, hydrophones	6A001.a.2.a.2
Optical filters	6A994.a
Optical filters technology	6E993.b
Optical finishing processes	2B002.d
Optical (Infrared) tracking (range) radars	6A108.b.2
Optical integrated circuits	3A001.a.6
Optical materials	6C994
Optical materials, with non-linear characteristics	6C004.b.3

Description	ECCN Citation
Optical mirrors (reflectors)	6A004.a
Optical mirrors (reflectors)	6A005.e.2
Optical sensing fibers not controlled by 6A002	6C992
Optical Sensors	6A992
Optical sensor cryocoolers	6A002.d.1
Optical sensors – flight control systems – technology	7E004
Optical sensors, optical fiber	6A002.d.3
Optical sensor materials	6C002
Optical sighting devices for firearms	0A987
Optical surface coating/treatment technology	6E003.d.1
Optical switching equipment	5A991.c.10.c
Optical switching equipment, equipment for the development of equipment employing	5E001.c.3
Optical-electro shutters, Kerr or Pockel cells	6A203.b.3.c
Optics	6A994
Optics, (optical components)	6A004
Optimization of rocket systems trajectory technology	7E104
Organic fibers & filamentary materials	1C010.a
Organic matrix	1A002.a
Organo-metallic compounds	3C003
Oropouche virus	1C351.a.24
Oscillators or oscillator assemblies	3A001.b.10
Oscilloscopes (analog and digital)	3A292
Oxide matrix reinforced materials	1C007.f
Oxygen Iodine (O ₂ -I) laser	6A005.d.5.c.1
PABXs (Private Automatic Branch exchanges)	5A991.c
Packet switching equipment	5A991.c.10
Parachutes, military	9A018.e
Paraffin wax	1C980
Parametric technical databases	1E002.g
Particle accelerators	1B999.b
Particle measuring systems employing lasers	3B992.b.7
Passive coherent location systems or equipment	5A001.g
Passive sensors, direction finding systems	7A115
Passive acoustic systems	6A001.a.1.d
Pathogens, genetically modified microorganisms	1C353.a
Pathogens, animal	1C352
Pathogens, human	1C351
Pathogens, plant	1C354
Pathogens, zoonotic	1C351
PBAA (Polybutadiene-acrylic acid)	1C111.b.3
PBAN (Polybutadiene-acrylic acid-acrylonitrile)	1C111.b.4
PEEK (Polyether ether ketone)	1C998
PEK (Polyether ketone)	1C998
PEKEKK (Polyether ketone ether ketone)	1C998
PEKK (Polyether ketone ketone)	1C998
1,1,3,3,3-Pentafluoro-2-(trifluoromethyl)-1-propene (382-21-8) (PFIB)	1C355.a.1.a
Perfluoroaliphatic-ethers, monomeric or polymeric	1C006.d.1.a
Perfluoroalkanes	1C006.d.1.d
Perfluorocycloalkanes	1C006.d.1.c
Perfluoropolyalkylether-triazines, monomeric or polymeric	1C006.d.1.a
Performance improvement software, navigation systems	7D003.a
Performance improvement source code, navigation systems	7D003.b
Peronosclerospora philippinensis (a.k.a. Peronosclerospora sacchari)	1C360.c.2.a
Peste des petits ruminants virus	1C352.a.10
Petroleum products produced or derived from Naval Petroleum Reserves	1C982
Petroleum, crude or reconstituted	1C981
PFIB (1,1,3,3,3-Pentafluoro-2-(trifluoromethyl)-1-propene (382-21-8))	1C355.a.1.a
Phased array antennae (in radar)	6A008.e
Phased array/segment mirror control equipment	6A004.d.4
Phased array antennae (in radar)	5A001.d
Phased array antennae	5A991.f
Phenylene, as lubricating fluids	1C006.b.1
Phoma glycinicola (formerly Pyrenochaeta glycinis)	1C360.c.2.d
Phosgene: Carbonyl dichloride (75-44-5)	1C355.b.1.a

Index 32

Description	ECCN Citation
Phosphate glass	6C004.e
Phosphor bronze or copper mesh packings	1A226
Phosphor image plates, storage	1A999.b
Phosphorus hydrides	3C004
Phosphorus oxychloride	1C350.c.3
Phosphorus pentachloride	1C350.c.4
Phosphorus pentasulphide	1C350.d.10
Phosphorus trichloride	1C350.c.5
Photo-enhanced CVD equipment	3B991.b.1.i
Photo-enhanced diffusion equipment	3B991.b.1.g
Photo-optical step and repeat cameras	3B991.b.2.d.1
Photocathodes	6A002.a.2.b
Photographic still cameras, underwater	8A001.e
Photographic still cameras, for underwater use	8A992.b
Photomultiplier tubes	6A202
Photovoltaic arrays, space qualified or radiation hardened	3A001.e.4
Physics-based simulation “software” specially designed for the “development” of lithographic, etching or deposition processes	3D003
Piezoelectric polymer & copolymer, made from vinylidene fluoride materials	1A001.b
Piezoelectric sensing elements, hydrophones	6A001.a.2.a.2.b
Pinacolone	1C350.d.11
Pinacolyl alcohol	1C350.b.18
Piping, austenitic stainless steel	2B999.n
Piping, fittings and valves of or lined with stainless steel, copper-nickel alloy or other alloy steel	2A292
Piping, monel	2B999.f
Piping, multi-walled incorporating a leak detection port	2B350.h
Piping, stainless steel	2B999.g
Piping, vacuum	2B999.k
Pitch-impregnated fibers	1C010.e
Planar absorbers	1C001.a Note 1.c&d
Plant pathogens, bacteria or fungi	1C354
PLAs (Programmable Logic Arrays)	3A001.a.8
Plasma atomization & melting furnaces	2B227.b
Plasma dry etching equipment	3B001.c
Plasma enhanced CVD equipment	3B001.d
Plasma-enhanced CVD (PECVD) equipment	3B991.b.1.i
Plasma enhanced or plasma assisted CVD production equipment	2B005.a.1.c
Plasma isotope separation plant	0B001.a.8
Plasma separation process equipment & components	0B001.i
Plasma spraying production equipment, with controlled atmosphere	2B005.d
Platforms, complete	9A992
Platinized catalysts	1A225
Plutonium metal production systems	0B006.g
Plutonium nitrate conversion systems	0B006.f
Plutonium-238	1C012.a
Pocket cell electro-optical shuttering	6A203.b.3.c
Police helmets and shields	0A979
Polyarylene ketones	1C008.d
Polybiphenylenethersulphone	1C008.f
Polybromotifluoroethylene	1C006.c.3
Polybutadiene-acrylic acid (PBAA)	1C111.b.3
Polybutadiene-acrylic acid-acrylonitrile (PBAN)	1C111.b.4
Polycarbosilazanes	1C007.e.3
Polychlorotrifluoroethylene	1C006.c.2
Polycrystalline alumina fibers	1C010.c Note 1
Polycrystalline silicon and materials production equipment	3B991.b.1.a
Polydiorganosilanes, precursor for silicon carbide	1C007.e.1
Polyether ketone ether ketone ketone (PEKEKK)	1C998
Polyether ketone (PEK)	1C998
Polyether ether ketone (PEEK)	1C998
Polyether ketone ketone (PEKK)	1C998
Polyetherimides, fibrous & filamentary materials composed of	1C010.d.1.a
Polygraphs	3A981
Polymeric or metallo-organic materials	1C007.e

Description	ECCN Citation
Polymeric substances	1C111.b
Polymeric substances, non-fluorinated	1C008
Polymeric substances, non fluorinated	1C998
Polysilazanes, precursor for silicon nitride	1C007.e.2
Polythiophene	1C001.c.3
Porcine enterovirus type 9	1C352.a.11
Porcine herpes virus (Aujeszky' disease)	1C352.a.6
Porous nickel metal	1C240
Porous nickel metal	0C006.b
Portable electric generator development or production software	2D994
Portable electric generators	2A994
Positioning equipment/components, global	7A005
Positioning equipment	7A105
Positioning systems, acoustic	6A001.a.1.d
Positioning tables or rate tables	2B120
Positioning tables or rate tables	2B121
Positive resists for semiconductor lithography	3C002.a
Post-flight data processing software	6D103
Potassium cyanide	1C350.d.12
Potassium bifluoride	1C350.d.14
Potassium fluoride	1C350.d.13
Potassium hydrogen fluoride see potassium bifluoride	1C350.d.14
Potassium titanyl arsenate (KTA)	6C004.b.1
Powassan virus	1C351.a.25
Powder metallurgy rotor component manufacturing equipment	9B009
Power generating equipment, nuclear reactor	0A002
Power supplies, high current/voltage/power (direct current)	0B001.j.5
Power supplies, direct current high power (dc)	3A226
Power supplies, direct current high-voltage	3A227
Power supplies, direct current (high current/voltage/power)	0B001.j.6
Power systems, air independent, for underwater use	8A002.j
Power transmission shaft systems, marine	8A002.o.1
Power transmission shaft systems, marine	8A002.o.1.e
Precision mandrels for filament winding machines	1B201
Precision rotor forming mandrels	2B209.b
Precision tracking systems, usable for missiles	6A108.b
Precursors for toxic chemical agents	1C350
Preform production equipment	1B101.d
Preforms, metal coated, for fiber prepreps in 9C110	9C110
Preforms production equipment	1B001
Preforms production equipment, n.e.s.	1B999.e
Preforms production equipment controlled by 1B999, software for	1D999.b
Preforms, fibrous or filamentary materials	1C010.e
Preforms, glass for optical fibers	5C991
Preforms for space vehicles (metal coated fiber)	9A110
Preforms, fibrous or filamentary materials	9A110
Preforms, metal coated fiber (for propulsion systems)	9A110
Prepreg production equipment	1B001.e
Prepreg production equipment	1B101.d
Prepreps production equipment, n.e.s.	1B999.e
Prepreps production equipment controlled by 1B999, software for.	1D999.b
Prepreps, fibrous or filamentary materials	1C010.e
Prepreps, resin impregnated fiber, for 9A110 items	9C110
Prepreps production equipment	1B001
Prepreps, when impregnated with phenolic or epoxy resins	1C010.e Note 2
Prepreps, fibrous or filamentary materials	9A110
Presses, hot isostatic	2B204
Presses, hot isostatic	2B104
Presses, hot isostatic	2B004
Presses, hot isostatic n.e.s.	2B999.a
Pressure vessels, for nuclear reactors	0A001.a
Pressure tubes, for fuel elements & primary coolant	0A001.e
Pressure transducers	2B230
Pressure regulators, air cylinders, hoses, valves and backpacks	8A992.h

Description	ECCN Citation
Pressure sensors, manganin & quartz	6A226
Primary cells and secondary cells	3A001.e.1.a, 3A991.j
Printed circuit boards for numerical control units, machine tools or feed back devices	2B998.c
Private automatic branch exchanges (PABXs)	5A991.c
Probing (test) systems, semiconductor devices	3B002.d
Process control instrumentation, for reprocessing plant	0B006.d
Process control hardware/systems designed for power industries	1B999
Process control hardware/systems designed for power industries controlled by 1B999, software for	1D999.a
Process control systems for use in nuclear reactor equipment	2A290.b
Process control systems for use in nuclear material handling and processing equipment	2A291.a
Processing equipment for bay or bottom cable systems	6A001.a.2.e.3
Processors, digital array	3A001.a.3 Note
Processors, digital signal	3A001.a.3 Note
Processors, digital signal	4A003
Processors, digital array	4A003
Product & tails collectors, for uranium vapor	0B001.i.1
Product & tails stations, UF ₆	0B002.c
Product & tails collector systems, uranium vapor	0B001.g.3
Production facilities, reentry vehicles	9B116
Production equipment, propulsion systems & components	9B115
Production equipment, reentry vehicles	9B115
Production facilities, rockets/propulsion systems	9B116
Profilometers	7B002.b
Program proof and validation software for real time processing equipment	4D993
Programmable gate & logic arrays (FPGA's & FPLA's), field	3A001.a.7
Programmable & logic arrays (FPGA's & FPLA's), field	3A001.a.8
Programming controls for filament winding machines	1B201
Projectile accelerators	2B232
Projection image transfer equipment	3B991.b.2.g
Projection telescopes, laser diagnostics	6A005.f.4
Projectors, acoustic	6A001.a.1.c
Prolifometers, to characterize mirrors for laser gyro equipment	7B102.c
Propellant additives and agents	1C111.c
Propellants and constituent materials	1C111
Propellant control systems	9A106.d
Propellant (liquid) production equipment and components	1B115
Propellant (liquid) test and handling equipment and components	1B115
Propellant (solid) production equipment and components	1B117
Propeller blades or propfans composite technology	9E003.b.2
Propeller noise reduction technology	8E002.a
Propeller noise reduction software	8D002
Propellers, contrarotating	8A002.o.1.b
Propellers, water screw	8A002.o.1
Propulsion equipment, nuclear	0A002
Propulsion systems/components, production equipment	9B115
Propulsion systems, rocket	9A005
Propulsion equipment, underwater	8A992.j
Propulsion system components/structures, launch-vehicle	9A010
Propulsion system composite components/structures	9A110
Propulsion system use software	9D101
Propulsion systems, rocket	9A009
Propulsion systems, rocket	9A007
Propulsive substances	1C111.a
Protective and detection equipment	1A004, 1A995, 2B351
Protective clothing, Independently ventilated	2B352.f.1
Protective suits, gloves, shoes	1A004, 1A995, 2B352.f.1
Proximity focused image intensifier tubes	6A203.b.3.a
<i>Pseudomonas mallei</i> (<i>Burkholderia mallei</i>)	1C351.c.5
<i>Pseudomonas pseudomallei</i> (<i>Burkholderia pseudomallei</i>)	1C351.c.6
Psychological stress analysis equipment	3A981
<i>Puccinia striiformis</i> (syn. <i>Puccinia glumarum</i>)	1C354.b.5
<i>Puccinia graminis</i> (syn. <i>Puccinia graminis</i> f. sp. <i>tritici</i>)	1C354.b.4
Pulmonary and renal syndrome-haemorrhagic fever viruses (Seoul, Dobrava, Puumala, Sin Nombre)	1C351.a.30
Pulsating Chemical Vapor Deposition production equipment	2B005.a.1.a

Description	ECCN Citation
Pulse amplifiers	3A999.c
Pulse excited Q switched neodymium-doped lasers	6A205.f
Pulse generators, high-current for detonators	3A229
Pulse generators, high-speed	3A230
Pulse jet engines/components	9A111
Pulse radar cross-section measurement systems & components	6B008
Pulse shaping networks, high power	3A999.c
Pulsed electron accelerators	3A201.c
Pumpjet propulsion systems	8A002.p
Pumps, liquid propellant	9A106.d
Pumps, lithium amalgam	1B233.b.2
Pumps, mercury or lithium amalgam	1B233.b.2
Pumps, molecular	0B001.c.9
Pumps, multiple seal	2B350.i
Pumps, nuclear reactor coolant	0A001.g
Pumps, potassium amide in liquid ammonia	1B230
Pumps, seal-less	2B350.i
Pumps, submersible stage recirculation	0B004.b.2.c
Pumps, vacuum	0B002.f.2
Pumps, vacuum	2B231
Pumps, vacuum	2B350.i
Pumps designed for industrial service	2B999.j
Pumps designed to move molten metals by electromagnetic force	2A293
Puumala (pulmonary and renal syndrome-haemorrhagic fever viruses)	1C351.a.30
Pyrolitic deposition nozzles	1B116
Pyrolitic deposition systems (“isostatic presses”, other than those controlled by 2B004)	2B104
Pyrolitic deposition systems (chemical vapor deposition furnaces, other than those controlled by 2B005.a)	2B105
Pyrolitic deposition systems, for rocket nozzles and reentry vehicle nose tips	2B117
Pyrolitically derived materials production technology	1E104
Pyrolized carbon-carbon components	1A102
Pyrolized carbon-carbon materials	1C102
Pyrolysis equipment, for rocket nozzles and reentry vehicle nose tips (“isostatic presses”, other than those controlled by 2B004)	2B104
Pyrolysis equipment, for rocket nozzles and reentry vehicle nose tips (chemical vapor deposition furnaces, other than those controlled by 2B005.a)	2B105
Pyrolysis equipment, for rocket nozzles and reentry vehicle nose tips (other than those controlled by 2B004, 2B005.a, 2B104, or 2B105)	2B117
Pyrolysis process control equipment, for “isostatic presses”, other than those controlled by 2B004	2B104
Pyrolysis process control equipment, for chemical vapor deposition furnaces, other than those controlled by 2B005.a	2B105
Pyrolysis process control equipment (other than those controlled by 2B004, 2B005.a, 2B104, or 2B105)	2B117
Pyrotechnic articles, dual use	1A984
Pyrotechnic devices, commercial	1C018.j, 1C992.k
QRS11–00100–100/101 Micromachined Angular Rate Sensors	7A994
Q-switched lasers	6A005.a or b
Q-switched lasers	6A205.f
Quadrature-amplitude-modulation (QAM) based radio equipment operating above level 4	5A991.b.7.a
Quadrature-amplitude-modulation (QAM) based radio equipment operating above level 16	5A991.b.7.b
Quadrature-amplitude-modulation (QAM) based radio equipment	5A991.b.7
Quadrature-amplitude-modulation (QAM) based radio equipment, equipment for the development of	5B001.b.4.a
Quadrature-amplitude-modulation (QAM) based radio equipment, software for the development of	5D001.d.4.a
Quadrature-amplitude-modulation (QAM) based radio equipment, technology for the development of	5C001.c.4.a
Quantum cryptography	5A002.a.9
Quartz pressure sensors/transducers	6A226.b
3-Quinuclidinol	1C350.b.19
3-Quinuclidone	1C350.d.15
Radar cross section measurement systems, missile	6B108
Radar systems & components	6A008
Radar altimeters	7A106
Radar software	6D003.h
Radar systems, employing automatic pattern recognition	6A008.l.3
Radar systems, employing signal processing	6A008.h

Index 36

Description	ECCN Citation
Radial ball bearings	2A001
Radiation detection, monitoring and measurement equipment	1A999.a
Radiation hardened detectors	6A002
Radiation hardened detectors	6A102
Radiation hardened designed (or rated) robots	2B007.c
Radiation hardened electronic computers	4A001.a.2
Radiation hardened integrated circuits	3A001.a.1
Radiation hardened sensors	6A002
Radiation hardened TV cameras	6A203.c
Radiation hardened TV cameras not specified in 6A203	6A999.b
Radiation transport calculations/modeling, software for	0D999.b
Radiation sensors, optical fibers	6A002.d.3
Radiation shielding windows	1A227
Radio frequency ion excitation coils	0B001.i.2
Radio equipment	5A001.b.2–4
Radio equipment	5A991.b.6–7
Radio relay communications equipment	5A991.h
Radio, shortwave technology	5E001.c.4.c
Radio systems development/production technology	5E001.b.3
Radiographic detection equipment	1A999.b
Radiographic equipment	3A101.b
Radionuclides, alpha-emitting	1C236
Radionuclides, alpha-emitting, n.e.s.	1C999.g
Radium–226, compounds, mixtures, products or devices	1C237
Radome design software	6D003.h.2
Radomes usable in protecting missiles against nuclear effects	6A103
Raman shift lasers	6A205.e
Ramjet engines/components	9A011
Range gated illumination systems, underwater	8A002.d.2
Range instrumentation radars	6A108.b.2
Rankine cycle engine, air independent	8A002.j.1
Rate tables and positioning tables	2B121
Rate tables, positioning tables, and motion simulators	2B120
Rathayibacter toxicus	1C360.c.1.a
Reactor vessels, chemical	2B350.a
Reactors, nuclear	0A001
Reactors, metal organic chemical vapor deposition (MOCVD)	3B001.a.2
Real time processing	2D002.b
Real time processing operating systems	4D993.c
Real time processing equipment operating system software	4D993.c
Real time processing proof and validation software	4D993
Receivers, microwave test	3A002.f
Receivers, radio	5A001.b.2–4
Reciprocating diesel engine & component technology	9E003.e.1
Reconstructed replication competent forms of the 1918 pandemic influenza virus containing any portion of the coding regions of all eight gene segments	1C360.a.1.c
Recording equipment, analog & digital tape recorders	3A002.a
Recovery of source code – software	5D001.c.2
Red dot sights	0A987
Reduced observables analysis software	1D103
Reduction gearing, light-weight marine transmissions	8A002.o.1.d
Reentry vehicles & equipment	9A116
Reentry vehicles/components, production equipment	9B115
Reflectance measuring equipment, absolute	6B004
Reflectivity (electromagnetic) reducing materials	1C101
Reflectometers, mirror characterization	7B102.b
Reflectors (mirrors), optical	6A004.a.1
Reflex sights	0A987
Refrigeration units, cryogenic	0B001.d.7.b
Refrigeration units, hydrogen or helium	1B231.b.1
Reinforced composite materials	1C007.f
Reinforcement fiber, production equipment	1B001.d
Release mechanisms, electronic	9A992
Remote manipulators	2B225

Description	ECCN Citation
Remotely operated vehicles	1A006.a
Remotely operated filling equipment, chemical	2B350.f
Remotely piloted vehicles (RPVs), non-military	9A012
Remotely controlled manipulators, for submersibles	8A002.i
Repeater/regenerator equipment	5A991.b Note a.4,5
Reprocessing plant, nuclear fuel	0B006
Resaturated pyrolyzed components	1A102
Resaturated pyrolyzed materials	1C102
Resin impregnated fiber prepregs for 9A110 items	9C110
Resin impregnated fibers	1C010.e
Resin (thermoset) impregnated continuous materials	1C210.c
Resin impregnated fiber prepregs, propulsion & space systems	9A110
Resins, fast reacting ion-exchange	0B001.f.1
Resist materials, semiconductor lithography	3C002
Resists (positive), semiconductor lithography	3C992
Resist material, coated (semiconductor) substrates	3C002
Restraint devices (electronic monitoring)	3A981
Restraint devices, law enforcement, including leg irons, shackles, and handcuffs; straight jackets, stun cuffs; shock belts; shock sleeves, multipoint restraint devices, restraint chairs	0A982
Reticles, integrated circuits of 3A001	3B001.g
Reticles and designs	3B991.b.2
Reticles sights	0A987
Ricin	1C351.d.5
Rickettsia prowasecki (a.k.a. Rickettsia prowazekii)	1C351.b.3
Rickettsia quintana	1C351.b.1
Rickettsia rickettsii	1C351.b.4
Rickettsiae	1C351.b
Rift Valley fever virus	1C351.a.13
Rinderpest virus	1C352.a.12
Ring laser gyro mirror characterizing equipment	7B002
Ring Magnets	0A999
Ring-shaped motor stators for multiphase AC motors	0B001.c.10
Rings or bellows, gas centrifuge	0B001.c.6
Robot end-effectors	2B207
Robot end-effectors	2B007
Robot controllers for high explosive handling	2B207
Robot controllers	2B007
Robots with real time 3D image processing or scene analysis	2B007.a
Robots not controlled by 2B007 or 2B207	2B997
Robots, specially designed to operate at high altitudes	2B007.d
Robots, explosive/munitions environment handling	2B007.b
Robots, radiation hardened	2B007.c
Robots with real time 3D image processing or scene analysis	2B207
Robots specially designed for underwater use	8A002.h
Rochalimea quintana	1C351.b.1
Rocio virus	1C351.a.26
Rocket fuels	1C111
Rocket/rocket motor, test benches/stands	9B117
Rocket engines, solid propellant	9A107
Rocket motors, hybrid	9A109
Rocket nozzles	9A106.b
Rocket stages, other than those of 9A005/7/9, 9A105/107/109	9A119
Rocket motor inspection equipment	9B007
Rockets, sounding	9A104
Roller bearings, solid	2A001.a
Roller bearings, solid	2A001.b
Rollers for prepregs/preform production	1B101.d
Rotary shaft seals (for compressors/blowers), UF ₆ resistant	0B001.b.2.b
Rotary position feedback units	2B008.b
Rotary shaft seals	0B001.d.3
Rotary shaft seals for compressors	0B001.h.4
Rotor assembly mandrels, bellows forming	2B228.a
Rotor assemblies, gas centrifuge	0B001.c.2
Rotor blade tip clearance control, compensating system software	9D004.d

Description	ECCN Citation
Rotor centrifugal balancing machines	2B229
Rotor components, tooling for manufacture	9B009
Rotor fabrication/assembly equipment	2B228.a
Rotor forming mandrels, precision	2B209.b
Rotor straightening equipment or systems	2B228.b
Rotor tube baffles, gas centrifuge	0B001.c.7
Rotor tube caps, gas centrifuge	0B001.c.8
Rotor tube cylinders & components, gas centrifuge	0B001.c.3
Routers, telecommunications	5A991.c.10
Ruby lasers	6A995.c
Russian Spring-Summer encephalitis virus	1C351.a.14
S-parameter test/measurement equipment	3B002.a
S20 and S25 photocathodes	6A002
Sabia (South American haemorrhagic fever)	1C351.a.29
Safety cabinets, capable of biological use	2B352.f.2
Salmonella typhi	1C351.c.10
Salvage systems, ocean	8A001.e
Saps	0A978
Satellite communication equipment technology	5E001.b.1
Satellite receivers	7A005
Satellite receivers, other than those of 7A005	7A105
Satellites, commercial communications	9A004
SAW (Surface Acoustic Wave) devices	3A001.c.1
Saxitoxin	1C351.d.6
Scanning electronic beam guns	0B001.g.1
Scanning cameras & systems	6A003.b.2
Scatterometers	7B002.a
Scatterometers, to characterize mirrors for laser gyro equipment	7B102.a
Sclerophthora rayssiae var. zeae	1C360.c.2.b
Scoops for UF ₆ extraction in gas centrifuges	0B001.c.13
Scramjet engines/components	9A011
Screw reactors, UF ₆ production	0B003.b.1
Scuba gear	8A992.h
SDH (Synchronous Digital Hierarchy) technology	5E001.b.4
SDH (Synchronous Digital Hierachy) technology	5E991.a.2
Sea-induced motion control systems, automatic	8A002.n
Sealers (semi-automatic or automatic hot cap) for ceramic microcircuit packages	3B991.b.3.c
Seal-less pumps	2B350.i
Seals, aircraft/aerospace use	1A001.a
Seals, for surface effect vessels	8A002.k
Seals, made from fluoroelastomers	1A001.c
Seals, rotary shaft	0B001.d.3
Seals, rotary shaft for compressors	0B001.h.4
Search lights	0A018.a
Security equipment, information	5A002
Security equipment, information, software	5D002
Security imaging equipment	2A984, 2D984, 2E984
Security scanning equipment	2A984, 2D984, 2E984
Segmented mirrors, assembly in space	6A004.c.3
Seismic detection equipment	6A999.a
Semiconductor, test equipment	3B002
Semiconductor compound photocathodes	6A002.a.2.b.3
Semiconductor components, extended temperature range	3A001.a.2
Semiconductor component design software, computer-aided-design	3D003
Semiconductor device discrete testing equipment	3B992.b.4.a
Semiconductor device inspection or testing equipment and systems	3B992.b
Semiconductor device or material manufacturing equipment	3B001
Semiconductor devices manufacturing equipment and systems	3B991.b
Semiconductor lasers	6A005.d.1
Semiconductor materials purifying or processing equipment	3B991.b.1.b
Semiconductor probing systems, electron & laser beam	3B002.d
Sensing elements, hydrophone	6A001.a.2.a
Sensing fibers, optical (not controlled by 6A002)	6C992
Sensor materials, optical	6C002

Description	ECCN Citation
Sensors, direction finding systems (passive)	7A115
Sensors, industrial infrared	6A002.a
Sensors, linear position feedback unit	2B008.a
Sensors, Micromachined Angular Rate	7A994
Sensors, multispectral imaging	6A002.b
Sensors, optical	6A992
Sensors, optical	6A002
Sensors, pressure (manganin & quartz)	6A226
Sensors, radiation hardened	6A102
Sensors, superconductive electromagnetic	6A996
Seoul (pulmonary and renal syndrome-haemorrhagic fever viruses)	1C351.a.30
Separation mechanisms for missiles	9A117
Separation nozzles, aerodynamic isotope separation	0B001.d.1
Separation nozzles, UF ₆ /Carrier gas separation	0B001.d.7.c
Separation plant, aerodynamic isotope separation	0B001.a.3
Separation process (aerodynamic) equipment	0B001.d
Separation systems for separating UF ₆ from carrier gas	0B001.h.5
Separation tubes, aerodynamic isotope separation	0B001.d.2
Separator module housings (cylindrical or rectangular vessels)	0B001.g.4
Separator module housings, uranium metal plasma source	0B001.i.6
Separators, centrifugal (biological)	2B352.c
Separators, electromagnetic isotope	1B226
Separators, molecular laser isotopic separation	0B001.h
Servo valves, propellant control systems	9A106.d
Shackles	0A982
Shaft encoders (rotary input type)	3A001.f
Shale oil	1C981
Shaving machines, gear	2B003
Sheep pox virus	1C352.a.13
Shields, police	0A979
Shiga toxin	1C351.d.7
Shiga-like ribosome inactivating proteins other than verotoxin	1C351.d.10
Shigella dysenteriae	1C351.c.11
Ship vessel positioning systems, acoustic	6A001.a.1.d
Shock batons	0A985
Shock belts	0A982
Shock shields	0A985
Shock sleeves	0A982
Shock tubes	1C018, 1C992.c
Shoes, protective	1A004, 1A995
Shortwave radio technology	5E001.c.4.c
Shotgun shells	0A986
Shotgun shell manufacturing equipment	0B986
Shotgun shells, buckshot	0A984
Shotguns and shotgun shells, technology for the development or production of	0E984
Shotguns, barrel length 18 inches or over	0A984
Shotguns trigger mechanisms, barrels, magazines, magazine extension tubes, receivers	0A984
Shrink fit machines for rotor fabrication/assembly	2B228.a
Sidelooking airborne radar (SLAR)	6A008.d
Sights and sighting devices for firearms	0A987
Signal processor microcircuits	3A001.a.3 Note
Signal generators, frequency synthesizer based	3A002.d
Signal analyzers	3A002.c
Signal processing devices, acousto-optic	3A001.c.3
Signal processing (digital) transmission equipment	5A991.b.8
Signal processing equipment, sonar	6A001.a.1.d
Signal processing equipment	4A994.f
Signal processing equipment, general purpose digital	4A003
Signal processing equipment, hydrophone arrays	6A001.a.2.c
Signal tracking development/use technology, laser	5E001.b.2
Signature suppression devices, treatments & fittings	1C001
Signature (electromagnetic) reduction devices	1C001
Signature (electromagnetic) reduction devices	1A101
Signature suppression devices, treatments & fittings	1A101

Description	ECCN Citation
Silahydrocarbon oils	1C006.a.1
Silicon carbide (SiC) substrate blanks	6C004.d
Silicon, hetero-epitaxial grown multi-layer substrates	3C001.a
Silicon microcircuits	3A001.a
Silicone carbide wafers	3C005
Silicon-on-sapphire integrated circuits	3A001.a Note 2
Silicone fluid, fluorinated	1C006.b.2
Silver gallium selenide (AgGaSe ₂)	6C004.b.2
Silylated resists for semiconductor lithography	3C002.d
Simulators for nuclear reactors	2A291.b
Simultaneous initiation arrangements or systems, single & multipoint	3A232.b
Single crystal casting control software	9D004.c
Single crystal casting equipment	9B001.a
Single crystals	6C002.b
Single mode optical fiber & cable	5A991
Single point diamond turning techniques, technology	6E003.d.2
Single-element & focal plane arrays, space-qualified	6A002.e
Sin Nombre (pulmonary and renal syndrome-haemorrhagic fever viruses)	1C351.a.30
Skin friction transducers, wall	9B008
Skirts, for surface effect vessels	8A002.k
Slapper detonators (Electric)	1A007, 3A232.a.3
Slurry propellant control systems	9A106.d
Small waterplane area vessels	8A001.i
Smoke bombs	1A984
Sodium azide	1C992.l
Sodium bifluoride	1C350.d.16
Sodium cyanide	1C350.d.17
Sodium fluoride	1C350.d.18
Sodium (Na) metal vapor lasers	6A005.b
Sodium sulphide	1C350.d.19
<i>Software, see product group D for controls in each category</i>	
Software, adaptive control	2D002.b.2
Software, adaptive control	2D992.a
Software, dedicated, for toxic gas monitoring systems and their dedicated detecting components controlled by 2B351	2D351
Software, electronic devices	2D002
Software, for coordinating function of multiple subsystems for use in missiles	9D105
Software, for potable electric generator development or production	2D994
Software for Nuclear materials, facilities and equipment	0D001
Software, numerical control	2D002
Software, real time processing in machine tools	2D002.b
Software, real time processing equipment operating systems	4D993.c
Software, recovery of source code	5D001.c.2
“Software” specially designed or modified for the “development”, “production” or “use” of equipment controlled by 2A983	2D983
Software, specially designed for the “development” of the equipment controlled by 3A003	3D004
Solar cells–interconnect–coverglass (CIC) assemblies, solar panels, and solar arrays (space qualified)	3A001.e.4, 3A991
Solenoids, superconductive	3A001.e.3
Solenoids, superconductive	3A201.b
Solid propellant rocket engines	9A107
Solid rocket propulsion systems	9A007
Solid rocket propulsion system, components	9A008
Solid rocket propulsion system, components	9A108
Solid state cameras	6A003.b.1
Solid state joining equipment, tools/dies/fixtures	9B004
Solid state imaging devices	6A203.b.3
Solid-state imaging devices	6A002
Solid-state pulsed power switching thyristor devices and thyristor modules	3A001.g
Solid state lasers, tunable	6A005.c
Solid state microwave amplifiers	3A001.b.4
Solid–state power semiconductor switches, diodes, or ‘modules’	3A001.h
Solid state storage equipment	4A994.d
Sonar, active individual	6A001.a.1.e

Description	ECCN Citation
Sonar processing equipment	6A001.a.2.b
Sonar log equipment	6A001.b
Sonar, underwater navigation system	7A008
Sonar signal processing equipment	6A001.a.1.d Note a
SONET (Synchronous Optical Network) technology	5E001.b.4
SONET (Synchronous Optical Network) technology	5E991.a.2
Sounding rocket use software	9D101
Sounding rockets	9A104
Source code automatic generation software	4D993.b
Source code, development of goods as specified	7D003.d
Source code recovery software	5D001.c.2
South American haemorrhagic fever (Sabia, Flexal, Guanarito)	1C351.a.29
Space launch vehicles	9A004
Space probes	9A004
Space qualified focal plane arrays	6A002.e
Space qualified or radiation hardened photovoltaic arrays	3A001.e.1.c
Space-qualified solid state detectors	6A002.a.1
Space-qualified optical components	6A004.c
Spacecraft	9A004
Spacecraft components	9A010
Spacecraft inertial navigation equipment/components	7A003
Spark-gaps, triggered	3A228.b
Spectrometry analytical instruments	3A999.f
Spherical aluminum powder	1C111.a.1
Spiked batons	0A983
Spin forming machines	2B009
Spin forming machines	2B209
Spin forming machines	2B999I
Spin forming machines capable of flow-forming functions	2B209
Spin forming machines combining spin-forming and flow-forming function	2B009
Spindle assemblies	2B998.a
Spindle assemblies, machine tools	2B008.c
Spray booms or arrays of aerosol generating units, specially designed for fitting to aircraft, "lighter than air vehicles" or "UAVs"	2B352.h.2
Spray cooling thermal management systems	3A003
Spraying or fogging systems, specially designed for fitting to aircraft, "lighter than air vehicles," or "UAVs"	2B352.h.1
Spraying production equipment, plasma with controlled atmosphere	2B005.d
Spread spectrum development technology techniques	5E001.b.4
Spread spectrum radio equipment	5A001.b.3
Spread spectrum spreading code generation	5A002.a.5
Sprytron tubes, vacuum	3A228.a
Sputter deposition production equipment	2B005.e
Sputtering equipment, magnetically enhanced	3B991.b.1.f
SQUIDs (Superconducting quantum interference devices)	6A006.a.1
Staging mechanisms for missiles	9A117
Stainless steel plate	1C999.b
Staphylococcus aureus toxins	1C351.d.8
Statistical multiplex equipment	5A991.b Note a.7
Stators, ring shaped (centrifugal rotor motor)	0B001.c.10
Steam sterilizable freeze drying equipment	2B352.e
Steel, maraging	1C216
Steel, maraging	1C116
Steel, Titanium-stabilized duplex stainless (Ti-DSS)	1C118
Steel plate, stainless	1C999.b
Step & repeat equipment, semiconductor wafer processing	3B001.f.1
Stirling cycle engine, air independent	8A002.j.4
St. Louis encephalitis virus	1C351.a.27
Storage & holding vessels, critically safe & resistant to nitric acid	0B006.e
Storage integrated circuits	3A001.a.4
Storage phosphor image plates	1A999.b
Storage tanks, chemical (capacity greater than 100 L)	2B350.c
Stored program controlled (SPC) switching equipment	5A991.c
Stored program controlled (SPC) switching equipment, equipment for the development of equipment employing	5B001.b

Description	ECCN Citation
Stored program controlled (SPC) switching equipment, software for the development of equipment employing	5D001.d
Stored program controlled (SPC) switching equipment, technology for the development of equipment employing	5E001.c
Stored program controlled equipment controlled by 3B, software for use of	3D002
Stored program controlled crystal pullers	3B991.b.1.c.2
Straight jackets	0A982
Strap down/gimbal inertial navigation systems or equipment	7A003
Streak cameras, mechanical type	6A203.a.2
Streak cameras, mechanical or electronic	6A003.a.3
Streak tubes, electronic streak cameras	6A203.b.1
Streak cameras, electronic type	6A203.b.1
Strip electronic beam guns	0B001.g.1
Stroboscopic light systems	8A992.c
Structural composites production equipment	1B101
Structures and composite structures, laminate, and manufacturers for missiles	9A110
Stun guns	0A985
Stun cuffs	0A982
Subcavitating hydrofoils	8A002.m
Submarine engines, n.e.s.	8A992.g
Submarine net	8A018.b.5
Submarine vessel positioning systems, acoustic	6A001.a.1.d
Submersible stage recirculation pumps	0B004.b.2.c
Submersible systems	8A992.e
Submersible vehicles/vehicle systems or equipment, or components	8A002.a
Submersible vehicles/vehicle systems or equipment	8A001
Subscriber line interfaces	5A991.c.2.a
Substrate development/production technology, diamond film	3E003.d
Substrates, for X-ray masks	3B991.b.2.b.2
Substrates, hard surface coated	3B991.b.2.b.1
Substrates, multi-layer hetero-epitaxial materials	3C001
Substrates, semiconductor with resist coating	3C002
Substrates with at least one epitaxial layer of silicon carbide, gallium nitride, aluminum nitride or aluminum gallium nitride	3C006
Suits, protective	1A004, 1A995, 2B352.f.1
Sulphur dichloride	1C350.c.7
Sulphur monochloride	1C350.c.6
Super-ventilated propellers	8A002.o.1.a
Supercavitating hydrofoils	8A002.m
Supercavitating propellers	8A002.o.1.a
Supercomputers, see Computers	
Superconducting quantum interference devices (SQUIDs)	6A006.a.1
Superconductive composite conductor	1C005
Superconductive gates, current switching	3A001.d.1
Superconductive electromagnet sensors	6A996.b
Superconductive electromagnets or solenoids	3A201.b
Superconductive electromagnets or solenoids	3A001.e.3
Superconductive devices or circuits	3A001.d
Superconductive quantum interference devices (SQUIDs)	6A006.a.1
Superconductive propulsion engines	8A002.o.2.c
Superconductive electromagnetic sensors	6A996
Superconductive electronic device technology	3E003.c
Superplastic forming technology, metal working	2E003.b.1.a
Superplastic forming tools, dies, molds or fixtures	1B003
Superplastic forming technology/data, Al/Ti/Super alloys	2E003.b.2.a
Supersonic expansion nozzles for UF ₆ carrier gas	0B001.h.1
Surface irregularity measuring equipment/instruments	2B006.c
Surface coating & processing equipment	2B005
Surface skimming (shallow bulk) acoustic wave devices	3A001.c.1
Surface acoustic wave devices	3A001.c.1
Surface vessel positioning systems, acoustic	6A001.a.1.d
Surface vessels & components	8A001
Surface finishing equipment	3B991.b.1.k
Surface-effect vehicles, (fully skirted variety)	8A001.f

Description	ECCN Citation
Surface-effect vehicles, (fully skirted variety)	8A002.k
Surface-effect vehicles, (rigid sidewalls)	8A001.g
Surreptitious interception devices	5A980
Survey systems, bathymetric	6A001.a.1.b
Swine fever virus (African)	1C352.a.1
Swine fever virus (Hog cholera virus)	1C352.a.7
Switch fabric development/production technology	5A991.c.10
Switch-terminal interfaces	5A991.c.2.a
Switching devices, modules or assemblies	3A228
Switching equipment, stored program controlled	5A991.c
Synchronous Digital Hierarchy (SDH) technology	5E001.b.4
Synchronous Digital Hierarchy (SDH) technology	5E991.a.2
Synchronous Optical Network technology (SONET)	5E001.b.4
Synchronous Optical Network technology (SONET)	5E991.a.2
Synchytrium endobioticum	1C360.c.2.c
Syntactic foam, underwater use	8C001
Synthetic crystalline laser host material	6C005
Synthetic diamond material	6C004.f
Synthetic aperture radar (SAR)	6A008.d
Systolic array computers/assemblies/components	4A004.a
T-2 toxin	1C351.d.15
Tanks, austenitic stainless steel	2B999.n
Tanks, chemical storage (capacity greater than 100 L)	2B350.c
Tanks, monel	2B999.f
Tanks, stainless steel	2B999.g
Tank turret rings and sprockets induction hardening machines	2B018.m
Tank turret bearing grinding machines	2B018.s
Tantalum crucibles coated with tantalum carbide/nitride/boride	2A225.c
Tantalum made or lined crucibles	2A225.b
Tape designed for testing recording equipment of entry 3A002a	3A002.a
Tape bonders, stored program controlled equipment	3B991.b.3.b
Tape recording equipment	3A002.a
Tape-laying machines	1B101.b
Tape-laying machines	1B001.b
Tar sands	1C981
Tear gas	1A984
<i>Technology, see product group E for controls for each category.</i>	
Technology, airborne equipment	7E004.a
Technology, development of frequency hopping techniques	5E001.b.4
Technology, development of spread spectrum techniques	5E001.b.4
Technology, diamond substrate film	3E003.d
Technology, gas turbine engine components	9E003.c
Technology, gas turbine engine components	9E003.a
Technology, helicopter power transfer systems	9E003.d
Technology, hetero-structure semiconductor development	3E003.b
Technology, high output type diesel engines	9E003.e
Technology, integration software for expert systems	2E003.e
Technology, machine tool instruction generators	2E003.d
"Technology" specially designed or modified for the "development", "production" or "use" of equipment controlled by 2A983, or the "development" of software controlled by 2D983	2E983
Technology, superconductive electronic device	3E003.c
Technology, tilt rotor/wing power transfer systems development	9E003.d
Technology, vacuum microelectronic device	3E003.a
TEGDN (Triethylene glycol dinitrate) propellant additive	1C111.c.2
Telecommunications equipment	5A001
Telecommunications equipment, high and low temperature tolerant	5A991.a
Telecommunications equipment not controlled by 5A001	5A991
Telecommunications equipment/system software	5D001.c.1
Telecommunication test, inspection and production equipment	5B001
Telecommunications test equipment	5B991
Telecommunications transmission equipment, equipment for the development of equipment employing	5B001.b
Telecommunications transmission equipment, software for the development of equipment employing	5D001.d
Telecommunications transmission equipment, technology for the development of equipment employing	5E001.c
Telemetry & telecontrol equipment for missiles	5A101

Description	ECCN Citation
Television cameras, underwater	8A002.d.1.b
Television systems (camera, lights, monitoring and signal transmission equipment), remote operation with submersible vehicle	8A992.a.1
Television cameras, underwater	8A002.d.1
Television cameras, underwater	8A002.d.1.a
Television cameras, underwater	8A992.a.2
Tellurium (Te)	6C002.a
Tempest type equipment	5A002.a.4
Tension stretchers for prepregs/preform production	1B101.d
Terminal interface equipment	4A994.i
Terrestrial, marine acoustic equipment	6A991
Teschen disease virus	1C352.a.14
Test benches/stands, for rockets/motors/rocket engines	9B117
Test, calibration or alignment equipment for equipment controlled by 7A	7B001
Test chambers, aerosol challenge	2B352.g
Test equipment – propellants and their constituents	1B115
Test equipment – specially designed for testing finished or unfinished semiconductor devices	3B002
Test receivers, microwave	3A002.f
Test tape designed for recording equipment of entry 3A002a	3A002.a
Testing equipment, for electronic components	3B992.b.4
Test, inspection, development and production equipment for Category 5 items	5B
Tetrodotoxin	1C351.d.9
Thallium arsenic selenide (Tl ₃ AsSe ₃ or TAS)	6C004.b.3
Thermal ionization mass spectrometers (TIMS)	3A233.c
Thermal shields	0A001.h
Thermal sensors, optical fiber	6A002.d.3
Thermoplastic liquid crystal copolymers	1C008.b
Thermoset resin impregnated materials	1C210.c
Thio-ethers, as lubricating fluids	1C006.b.1
Thiodiglycol	1C350.b.20
Thionyl chloride	1C350.c.8
Thorium	0C001
Thrust tabs, thrust vector control subsystems	9A106.c
Thrust vector control sub-system	9A106.c
Thulium–YAG (Tm:YAG) lasers	6A005.c.1, c.2. or c.3
Thulium–YSGG (Tm:YSGG) lasers	6A005.c.1, c.2. or c.3
Thumbcuffs	0A983
Thumbscrews	0A983
Thyristor devices and modules, solid-state pulsed switching	3A001.g
Tick-borne encephalitis virus	1C351.a.14
Tilt rotor/tilt wing power transfer system technology	9E003.d
Tilting spindles for machine tools	2B009.c
Time delay general, electronic equipment for	3A999.e
Time interval measurement, electronic equipment for	3A999.e
Time or frequency domain processing & correlation equipment	6A001.a.2.c
TIMS (Thermal ionization mass spectrometers)	3A233.c
Titanium alloys	1C002.a.2.c
Titanium alloys, as tubes/solid forms/forgings	1C202.b
Titanium alloy/powder or particulate form	1C002.b.1.c
Titanium aluminides	1C002.a.1.b
Titanium-based alloys	1C002.a.1
Titanium doped sapphire laser host material	6C005.a
Titanium–sapphire (Ti: Al ₂ O ₃) lasers	6A005.c.1, c.2. or c.3
Titanium–stabilized duplex stainless steel 9Ti–DSS)	1C118
TMETN (trimethylolethane trinitrate)	1C111.c.4
Tooling for powder metallurgy rotor component manufacture	9B009
Torpedo net	8A018
Torture, specially designed implements of	0A983
Tow–placement machines	1B001.g
Towed acoustic hydrophone arrays	6A001.a.2.b
Toxic gas monitoring systems	2B351
Toxins	1C350, 1C351, 1C355, 1C395
Tracking radar	6A008.l.1
Tracking systems, precision	6A108.b.1

Description	ECCN Citation
Tracking systems	6A008.l
Tractors and parts	9A990
Transceivers, radio	5A001.b.2–10
Transceivers, radio	5A991.b.6–7
Transcoders (translation encoders)	5A991.b Note a.6
Transducers, wall skin friction	9B008
Transducers, acoustic projectors	6A001.a.1.c
Transient recorders (Waveform digitizers)	3A002.a.5, 3A292.d
Transistor test equipment, S-parameter measurement	3B002.a
Transistors, microwave	3A001.b.3
Translation encoders (transcoders)	5A991.b Note a.6
Transmission fluids, automatic	1C980
Transmission equipment	5A991.b
Transmission equipment for Radio Controlled Improvised Explosive Devices (RCIED)	5A001.h
Transmultiplex equipment	5A991.b Note a.9
Traveling wave tubes (TWTs), industrial	3A001.b.1.a
Tray exchange towers, hydrogen sulphide–water	0B004.b.1.a
Tributyl phosphate	1C999.d
Triethanolamine	1C350.c.9
Triethanolamine hydrochloride	1C350.d.20
Triethyl phosphite	1C350.c.10
Triethylene glycol dinitrate (TEGDN)	1C111.c.2
Triggered spark–gaps	3A228.b
Triggers, high voltage	3A999.c
Trimethyl phosphite	1C350.c.11
Tritium, compounds & mixtures	1C235
Tritium plant or facilities equipment	1B231.b
Tritium production recovery, extraction & concentration handling facilities or plant	1B231.a
Trusted Computer System Evaluation Criteria (TCSEC) capability	5A002.f
Tubes, cylindrical or conical tangential inlet flow–driven	0B001.d.2
Tubes, gas krytron	3A228.a
Tubes, pressure, nuclear reactors	0A001.e
Tubes, vacuum sprytron	3A228.a
Tubes, zirconium	0A001.f
Tunable ban-pass filters	3A001.b.5
Tunable lasers	6A005.c
Tunable lasers, solid state	6A005.c.1, c.2. or c.3
Tungsten alloys	1C004
Tungsten alloy, parts	1C226
Tungsten carbide, parts	1C226
Tungsten & molybdenum metal & alloys	1C117
Tungsten, parts	1C226
Turbines for use in nuclear reactors	2A290.a
Turbines, aero gas engines, test software	9D004.b
Turbines, gas aero engines	9A001
Turbo prop engines	9A018.a.2
Turbocompound engines	9A101
Turboexpanders and turboexpander–compressors	0B004.b.3.b
Turboexpanders and turboexpander–compressors	1B232
Turbofan & turbojet engines, lightweight	9A101
Turning machines for optical quality surfaces	2B992.a
Turning machines (CNC)	2B991.d.1
Turning machines	2B201.c
Turning machines (CNC)	2B001.a
TV cameras, radiation–hardened	6A203.c
TV cameras, radiation–hardened, not specified in 6A203	6A999.b
Two dimensional focal plane arrays	6A002.a.3
TWTs (Traveling Wave Tubes)	3A001.b.1.a
UAVs (non-military)	9A012.a
UF ₆	0B001.d.3
UF ₆ / carrier gas separation systems	0B001.h.5
UF ₆ / carrier gas separation systems	0B001.d.7
UF ₆ cold traps	0B001.d.7.d
UF ₆ cold traps	0B002.b

Index 46

Description	ECCN Citation
UF ₆ desublimers	0B002.b
UF ₆ Gaseous diffusion barriers & housing	0B001.b.3.4
UF ₆ liquefaction and solidification stations	0B002.d
UF ₆ mass spectrometers/ion sources	0B002.g
UF ₆ piping & header systems	0B002.e
UF ₆ product & tails stations	0B002.c
UF ₆ production plant, equipment & components	0B003
UF ₆ resistant compounds & powders	0C201
UF ₆ resistant or protected systems, equipment & components	0B002
UF ₆ vacuum headers	0B002.f.1
UF ₆ vacuum pumps	0B002.f.2
UF ₆ vacuum manifolds	0B002.f.1
Ultrasonic test equipment for nuclear reactors	2A291.d
Underwater breathing apparatus, self-contained	8A992.h
Underwater cameras, photographic	8A002.d-f
Underwater camera equipment, n.e.s.	8A992.d
Underwater communications systems	5A001.b.1
Underwater electronic imaging systems	8A002.f
Underwater electric field sensors	8A006.b
Underwater lights	8A992.j
Underwater noise reduction technology	8E002
Underwater optical fiber cables & accessories	5A001.c.2
Underwater (propeller) noise reduction software	8D002
Underwater propulsion equipment	8A992.j
Underwater rebreathing apparatus	8A018.a
Underwater robots, computer controlled	8A002.h
Underwater sonar navigation systems	7A008
Underwater systems or equipment and parts, not controlled by 8A002	8A992
Underwater television cameras	8A992.a.2
Underwater vehicles, industrial	8A001
Underwater velocity measurement equipment	6A001.b
Underwater vessel positioning systems, acoustic	6A001.a.1.d
Underwater vision systems	8A002.d
Underwater vision systems	8A992.a
Unmanned aerial vehicles, not specified in 9A102	9A120
Unmanned aerial vehicles and associated systems, production equipment	9B010
Unmanned aerial vehicles, associated equipment, systems, and components	9A012.b
Unmanned air vehicle systems (UAVs) Non-military	9A012.a
Unmanned tethered submersible vehicles	8A001.c
Unmanned untethered submersible vehicles	8A001.d
Uranium cooling equipment	0B001.g.2
Uranium conversion plant & equipment	0B003
Uranium, depleted	1A290
Uranium electromagnetic separator vacuum housings	0B001.j.3
Uranium fluoride (UF ₅) product filter collectors	0B001.h.2
Uranium hexafluoride (UF ₆) production plant, equipment & components	0B003
Uranium hexafluoride (UF ₆) resistant compounds & powders	0C201
Uranium hexafluoride (UF ₆) resistant compounds & powders	0C006
Uranium isotopes separation, lasers or laser systems	0B001.h.6
Uranium, natural or depleted	0C001
Uranium oxidation systems	0B001.e.6
Uranium plasma generation systems	0B001.i.4
Uranium titanium alloys	1C004
Uranium vapor product & tails collector systems	0B001.g.3
Vaccines and immunotoxins	1C991
Vacuum furnaces	2B226
Vacuum furnaces	2B227
Vacuum induction furnaces	2B226
Vacuum induction furnace, power supplies	2B226
Vacuum headers	0B002.f.1
Vacuum housings for uranium electromagnetic separators	0B001.j.3
Vacuum manifolds	0B002.f.1
Vacuum melting, remelt & casting furnaces	2B227
Vacuum microelectronic device development/production technology	3E003.a

Description	ECCN Citation
Vacuum pumps	2B231
Vacuum pumps	2B350.i
Vacuum pumps for UF ₆ bearing atmospheres	0B002.f.2
Vacuum tubes, electronic microwave	3A001.b.1
Vacuum sprytron tubes	3A228.a
Vacuum valves, piping, flanges, gaskets	2B999.k
Valve seats, made from fluoroelastomers	1A001.c
Valves, austenitic stainless steel	2B999.n
Valves, bellows seal	2A226
Valves, bellows	2B350.g
Valves, bellows	0B001.d.6
Valves, double-seal	2B350.g
Valves, of or lined with stainless steel, copper-nickel alloy or other alloy steel	2A292
Valves, diaphragm	2B350.g
Valves, gaseous diffusion isotope separation	0B001.b.1
Valves, monel	2B999.f
Valves, multiple seal incorporating a leak detection port	2B350.g
Valves, non-return (check)	2B350.g
Valves, stainless steel	2B999.g
Valves, vacuum	2B999.k
Variola virus	1C351.a.15
Vector processing unit technology	3E002
Vector processors/assemblies	4A003
Vehicle position determination software	6D103
Vehicles, specially designed or modified for military purposes	9A018.b
Velocity interferometers (VISARs)	6A225
Velocity measurement equipment, underwater	6A001.b
Venezuelan equine encephalitis virus	1C351.a.16
Ventilated full or half (protective clothing) suits	2B352.f.1
Ventilated propellers	8A002.o.1.a
Verotoxin	1C351.d.10
Vesicular stomatitis virus	1C352.a.15
Vessels, austenitic stainless steel	2B999.n
Vessel positioning systems, acoustic	6A001.a.1.d
Vessel noise reduction equipment	8A002.o.3
Vessels, marine	8A001
Vessels, marine systems or equipment	8A992
Vessels, monel	2B999.f
Vessels, stainless steel	2B999.e
Vests, bulletproof & bullet resistant	1A005
Vibration test equipment, acoustic	9B006
Vibration test equipment, parts and components	9B990
Vibration test equipment using digital control techniques	2B116
Vibrio cholerae	1C351.c.12
Video cameras incorporating solid state sensors	6A003.b.1
Vinylidene fluoride copolymers	1C009.a
Vinylidene fluoride copolymers, components of	1A001
virulans, fungi (Colletotrichum kahawae)	1C354.b.1
Virus protection software	5D992
Viruses	1C351, 1C352, 1C353
Viruses, animal pathogens	1C352.a
Viruses, human pathogens	1C351.a
Viruses, plant pathogens	1C354.c
Viscous software, 2D or 3D engine flow modeling	9D004.a
Viscum Album Lectin 1 (Viscumin)	1C351.d.19
Vision systems, underwater	8A992.a
Vision systems, underwater	8A002.d
Voice print identification and analysis equipment and parts	3A980
Volkensin toxin	1C351.d.18
Vortex tubes, aerodynamic isotope separation	0B001.d.2
Vortex tube units, UF ₆ separation from carrier gas	0B001.d.7.c
Wafer handling systems, semiconductor	3B001.e
Wafer processing, semiconductor manufacture	3B001.e
Wafer probing equipment	3B992.b.3

Description	ECCN Citation
Wafer production align and expose equipment	3B991.b.2.f
Wafers, semiconductor with function determined	3A001.a
Wafers, comprising multiple epitaxially grown layers	3C001
Wall skin friction transducers	9B008
War implement machinery, equipment, gear, and specially designed parts and accessories therefor	2B018
Water distillation towers, heavy	0B004.b.4.a
Water jet cutting machines (CNC)	2B001.e.1.a
Water jet (pumpjet) propulsion systems	8A002.p
Water tunnels, propulsion model acoustic field measurement	8B001
Water–hydrogen sulphide exchange tray columns	1B229
Water–screw propellers	8A002.o.1
Wave division multiplex equipment	5A991.b.5
Waveform digitizers (Transient recorders)	3A002.a.5
Wax pattern preparation equipment, ceramic shell	9B991.e
Weaving machines	1B001.c
Weight belts	8A992.i
Welders, MIG	2B999.d
Welders, E–beam	2B999.e
Welding machines, laser	2B999.c
Western equine encephalitis virus	1C351.a.17
Western red cedar, logs and timber	1C988
Wet–spinning equipment for refractory ceramics	1B101.c.3
Wet–spinning equipment for refractory ceramics	1B001.d.3
Wetsuits	8A992.i
Wide–swath bathymetric survey systems	6A001.a.1
Wigglers (free electron laser magnet) manufacturing or inspection equipment	6B995.a.1
Wind tunnel aero–model technology	9E003.b.1
Wind tunnel, control systems	9B005
Wind tunnels, usable for missiles	9B105
Winding machines, fiber optic gyro coil	7B003
Windows, glass for nuclear radiation shielding	1A227
Work stations, as computers having a CTP above 260 Mtops	4A003.b
X–ray converters	1A999.b
X–ray equipment for projection image transfer	3B991.b.2.g
X–ray generators, radiographic	3A201.c
X–ray machines, all flash	3A999.c
X–ray (non planar) inspection equipment, rocket motors	9B007
X–ray sensitive resist materials	3C002.c
Xanthomonas campestris pv. Citrumelo	1C354.a.2
Xanthomonas citri	1C354.a.2
Xanthomonas albilineans	1C354.a.1
Xanthomonas campestris pv. aurantifolia	1C354.a.2
Xanthomonas campestris pv. Citri	1C354.a.2
Xyella fastidiosa pv. citrus variegated chlorosis (CVC)	1C360.c.1.b
Yellow fever virus	1C351.a.18
Yersinia pestis	1C351.c.13
Yttrium oxide (yttria) (Y ₂ O ₃), crucibles made or coated	2A225.a.8
Zinc selenide (ZnSe), substrate blanks	6C004.a
Zinc sulphide (ZnS), substrate blanks	6C004.a
Zirconium fluoride (ZrF ₄) glass	6C004.e
Zirconium metal and alloy tubes & assemblies	0A001.f
Zirconium metal particulate	1C111.a.2.a
Zirconium metal, alloy, compounds, or manufacturers	1C234
Zirconium oxide (zirconia) (ZrO ₂) made/coated crucibles	2A225.a.9
Zoonotic pathogens and “toxins”	1C351

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NUMERICAL INDEX TO THE COMMERCE CONTROL LIST

ECCN	Description	Page
0A001	“Nuclear reactors”, i.e. reactors capable of operation so as to maintain a controlled, self-sustaining fission chain reaction, and equipment and components specially designed or prepared for use in connection with a “nuclear reactor”	Cat 0-1
0A002	Power generating or propulsion equipment specially designed for use with space, marine or mobile “nuclear reactors”. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 0-1
0A018	Items on the Wassenaar Munitions List	Cat 0-1
0A918	Miscellaneous Military Equipment not on the Wassenaar Munitions List	Cat 0-1
0A919	Military commodities	Cat 0-2
0A978	Law enforcement striking weapons, including saps, police batons, side handle batons, tonfas, sjamboks, and whips	Cat 0-2
0A979	Police helmets and shields; and parts, n.e.s.	Cat 0-2
0A980	Horses by sea	Cat 0-3
0A981	Equipment designed for the execution of human beings (See list of items Controlled)	Cat 0-3
0A982	Law enforcement restraint devices, including leg irons, shackles, and handcuffs; straight jackets; stun cuffs; shock belts; shock sleeves; multipoint restraint devices such as restraint chairs; and parts and accessories, n.e.s.	Cat 0-3
0A983	Specially designed implements of torture, including thumbscrews, thumbcuffs, finger cuffs, spiked batons, and parts and accessories, n.e.s.	Cat 0-3
0A984	Shotguns with barrel length 18 inches (45.72 cm) or over; receivers; barrels of 18 inches (45.72 cm) or longer but not longer than 24 inches (60.96); complete trigger mechanisms; magazines and magazine extension tubs; complete breech mechanisms; buckshot shotgun shells; except equipment used exclusively to treat or tranquilize animals, and except arms designed solely for signal, flare, or saluting use.	Cat 0-4
0A985	Discharge type arms and devices to administer electric shock, for example, stun guns, shock batons, shock shields, electric cattle prods, immobilization guns and projectiles; except equipment used exclusively to treat or tranquilize animals, and except arms designed solely for signal, flare, or saluting use; and parts, n.e.s.	Cat 0-4
0A986	Shotgun shells, except buckshot shotgun shells, and parts.	Cat 0-5
0A987	Optical sighting devices for firearms (including shotguns controlled by 0A984); and parts (See list of items controlled)	Cat 0-5
0A988	Conventional military steel helmets as described by 0A018.f.1; and machetes	Cat 0-5
0A999	Specific processing equipment.	Cat 0-5
0B001	Plant for the separation of isotopes of “natural uranium” and “depleted uranium”, “special fissile materials” and “other fissile materials”, and specially designed or prepared equipment and components therefor	Cat 0-5
0B002	Specially designed or prepared auxiliary systems, equipment and components, as follows, (see List of Items Controlled) for isotope separation plant specified in 0B001, made of or protected by UF ₆ resistant materials	Cat 0-8
0B003	Plant for the conversion of uranium and equipment specially designed or prepared therefor	Cat 0-9
0B004	Plant for the production of heavy water, deuterium or deuterium compounds, and specially designed or prepared equipment and components therefor	Cat 0-9
0B005	Plant specially designed for the fabrication of “nuclear reactor” fuel elements and specially designed equipment therefor	Cat 0-9
0B006	Plant for the reprocessing of irradiated “nuclear reactor” fuel elements, and specially designed or prepared equipment and components therefor	Cat 0-9
0B986	Equipment specially designed for manufacturing shotgun shells; and ammunition hand-loading equipment for both cartridges and shotgun shells.	Cat 0-10
0B999	Specific processing equipment	Cat 0-10
0C001	Natural uranium or depleted uranium or thorium in the form of metal, alloy, chemical compound or concentrate and any other material containing one or more of the foregoing	Cat 0-10
0C002	“Special fissile materials” and “other fissile materials”; except, four “effective grams” or less when contained in a sensing component in instruments.	Cat 0-11
0C004	Deuterium, heavy water, deuterated paraffins and other compounds of deuterium, and mixtures and solutions containing deuterium, in which the isotopic ratio of deuterium to hydrogen exceeds 1:5000.	Cat 0-11
0C005	Graphite, nuclear-grade, having a purity level of less than 5 parts per million “boron equivalent” and with a density greater than 1.5 g/cm ³	Cat 0-11
0C006	Nickel powder or porous nickel metal, specially prepared for the manufacture of gaseous diffusion barriers	Cat 0-11
0C201	Specially prepared compounds or powders, other than nickel, resistant to corrosion by UF ₆ (e.g. aluminum oxide and fully fluorinated hydrocarbon polymers), for the manufacture of gaseous	

	diffusion barriers, having a purity of 99.9 weight percent or more and a mean particle size of less than 10 micrometers measured by American Society for Testing and Materials (ASTM) B330 standard and a high degree of particle size uniformity.	Cat 0–11
0D001	“Software” specially designed or modified for the “development”, “production” or “use” of goods controlled by this Category	Cat 0–11
0D999	Specific software	Cat 0–12
0E001	“Technology” according to the Nuclear Technology Note for the “development”, “production” or “use” of items controlled by this Category.	Cat 0–12
0E018	“Technology” for the “development”, “production”, or “use” of items controlled by 0A018	Cat 0–12
0E918	“Technology” for the “development”, “production”, or “use” of bayonets	Cat 0–12
0E982	“Technology” exclusively for the “development” or “production” of equipment controlled by 0A982 or 0A985.	Cat 0–12
0E984	“Technology” for the “development” or “production” of shotguns controlled by 0A984 and buckshot shotgun shells	Cat 0–13
1A001	Components made from fluorinated compounds	Cat 1–1
1A002	“Composite” structures or laminates	Cat 1–1
1A003	Manufactures of non-“fusible” aromatic polyimides in film, sheet, tape or ribbon form having any of the following (see List of Items Controlled)	Cat 1–2
1A004	Protective and detection equipment and components, not specially designed for military use as following (see List of Items Controlled).	Cat 1–2
1A005	Body armor, and specially designed components therefor, not manufactured to military standards or specifications, nor to their equivalents in performance	Cat 1–3
1A006	Equipment, specially designed or modified for the disposal of improvised explosive devices, as follows (see List of Items Controlled), and specially designed components and accessories therefor	Cat 1–3
1A007	Equipment and devices, specially designed to initiate charges and devices containing energetic materials, by electrical means, as follows (see List of Items Controlled)	Cat 1–3
1A008	Charges, devices and components, as follows (see List of Items Controlled)	Cat 1–4
1A101	Devices for reduced observables such as radar reflectivity, ultraviolet/infrared signatures and acoustic signatures, for applications usable in “missiles” and their subsystems	Cat 1–4
1A102	Resaturated pyrolyzed carbon-carbon components designed for rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300km. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 1–5
1A202	Composite structures, other than those controlled by 1A002, in the form of tubes with an inside diameter of between 75 mm and 400 mm made with any of the “fibrous or filamentary materials” specified in 1C210.a or with carbon prepreg materials controlled by 1C210.c.	Cat 1–5
1A225	Platinized catalysts specially designed or prepared for promoting the hydrogen isotope exchange reaction between hydrogen and water for the recovery of tritium from heavy water or for the production of heavy water.	Cat 1–5
1A226	Specialized packings for use in separating heavy water from ordinary water and made of phosphor bronze mesh (chemically treated to improve wettability) and designed for use in vacuum distillation towers.	Cat 1–5
1A227	High-density (lead glass or other) radiation shielding windows greater than 0.09 m ² on cold area and with a density greater than 3 g/cm ³ and a thickness of 100 mm or greater; and specially designed frames therefor.	Cat 1–5
1A290	Depleted uranium (any uranium containing less than 0.711% of the isotope U–235) in shipments of more than 1,000 kilograms in the form of shielding contained in X-ray units, radiographic exposure or teletherapy devices, radioactive thermoelectric generators, or packaging for the transportation of radioactive materials.	Cat 1–6
1A984	Chemical agents, including tear gas formulation containing 1 percent or less of orthochlorobenzalmalononitrile (CS), or 1 percent or less of chloroacetophenone (CN), <i>except in individual containers with a net weight of 20 grams or less</i> ; smoke bombs; non-irritant smoke flares, canisters, grenades and charges; and other pyrotechnic articles having dual military and commercial use.	Cat 1–6
1A985	Fingerprinting powders, dyes, and inks.	Cat 1–6
1A995	Protective and detection equipment and components not specially designed for military use and not controlled by ECCN 1A004 or ECCN 2B351.	Cat 1–6
1A999	Specific processing equipment.	Cat 1–6
1B001	Equipment for the production or inspection of “composite” structures or laminates controlled by 1A002 or “fibrous or filamentary materials” controlled by 1C010, as follows (See List of Items Controlled), and specially designed components and accessories therefor.	Cat 1–7
1B002	Equipment for producing metal alloys, metal alloy powder or alloyed materials, specially designed to avoid contamination and specially designed for use in one of the processes specified in 1C002.c.2.	Cat 1–7

ECCN	Description	Page
1B003	Tools, dies, molds or fixtures, for “superplastic forming” or “diffusion bonding” titanium or aluminum or their alloys, specially designed for the manufacture of any of the following (see List of Items Controlled)	Cat 1–8
1B018	Equipment on the Wassenaar Arrangement Munitions List	Cat 1–8
1B101	Equipment, other than that controlled by 1B001, for the “production” of structural composites, fibers, prepregs or preforms as follows (see List of Items Controlled); and specially designed components, and accessories therefor.	Cat 1–8
1B102	Metal powder “production equipment,” other than that specified in 1B002, and components as follows (see List of Items Controlled)	Cat 1–9
1B115	Equipment, other than that controlled in 1B002 or 1B102, for the “production” of propellant or propellant constituents, and specially designed components therefor.	Cat 1–9
1B116	Specially designed nozzles for producing pyrolytically derived materials formed on a mold, mandrel or other substrate from precursor gases which decompose in the 1,573 K (1,300°C) to 3,173 K (2,900° C) temperature range at pressures of 130 Pa to 20 kPa.	Cat 1–9
1B117	Batch mixers with provision for mixing under vacuum in the range from zero to 13.326 kPa and with temperature control capability of the mixing chamber and having all of the following characteristics (see List of Items Controlled), and specially designed components therefor.	Cat 1–10
1B118	Continuous mixers with provision for mixing under vacuum in the range from zero to 13.326 kPa and with temperature control capability of the mixing chamber and having all of the following characteristics (see List of Items Controlled), and specially designed components therefor	Cat 1–10
1B119	Fluid energy mills usable for grinding or milling propellant or propellant constituents specified in 1C011.a, 1C011.b or 1C111, or on the U.S. Munitions List, and specially designed components therefor	Cat 1–10
1B201	Filament winding machines, other than those controlled by 1B001 or 1B101, in which the motions for positioning, wrapping, and winding fibers are coordinated and programmed in two or more axes, specially designed to fabricate composite structures or laminates from “fibrous or filamentary materials” and capable of winding cylindrical rotors of diameter between 75 mm and 400 mm and lengths of 600 mm or greater and coordinating and programming controls and precision mandrels therefor	Cat 1–10
1B225	Electrolytic cells for fluorine production with a production capacity greater than 250 g of fluorine per hour.	Cat 1–11
1B226	Electromagnetic isotope separators, designed for or equipped with, single or multiple ion sources capable of providing a total ion beam current of 50 mA or greater.	Cat 1–11
1B227	Ammonia synthesis converters or ammonia synthesis units in which the synthesis gas (nitrogen and hydrogen) is withdrawn from an ammonia/hydrogen high–pressure exchange column and the synthesized ammonia is returned to that column.	Cat 1–11
1B228	Hydrogen-cryogenic distillation columns	Cat 1–11
1B229	Water-hydrogen sulphide exchange tray columns constructed from fine carbon steel with a diameter of 1.8 m or greater, which can operate at a nominal pressure of 2 MPa or greater, and internal contactors therefor.	Cat 1–12
1B230	Pumps capable of circulating solutions of concentrated or diluted potassium amide catalyst in liquid ammonia (KNH ₂ /NH ₃).	Cat 1–12
1B231	Tritium facilities, or plant, and equipment	Cat 1–12
1B232	Turboexpanders or turboexpander-compressor sets designed for operation at 35 K (–238° C) or less and a throughput of hydrogen gas of 1000 kg/hr or greater.	Cat 1–12
1B233	Lithium isotope separation facilities or plant, and equipment	Cat 1–13
1B999	Specific processing equipment.	Cat 1–13
1C001	Materials specially designed for use as absorbers of electromagnetic waves, or intrinsically conductive polymers.	Cat 1–13
1C002	Metal alloys, metal alloy powder and alloyed materials	Cat 1–14
1C003	Magnetic metals, of all types and of whatever form, having any of the following (see List of Items Controlled)	Cat 1–15
1C004	Uranium titanium alloys or tungsten alloys with a “matrix” based on iron, nickel or copper, having all of the following (see List of Items Controlled)	Cat 1–15
1C005	“Superconductive” “composite” conductors in lengths exceeding 100 m or with a mass exceeding 100 g	Cat 1–15
1C006	Fluids and lubricating materials.	Cat 1–16
1C007	Ceramic base materials, non–“composite” ceramic materials, ceramic–“matrix” “composite” materials and precursor materials.	Cat 1–17
1C008	Non-fluorinated polymeric substances as follows (see List of Items Controlled).	Cat 1–17
1C009	Unprocessed fluorinated compounds as follows (see List of Items Controlled)	Cat 1–18
1C010	“Fibrous or filamentary materials” as follows (see List of Items Controlled)	Cat 1–18

ECCN	Description	Page
1C011	Metals and compounds.	Cat 1–19
1C012	Materials	Cat 1–19
1C018	Commercial charges and devices containing energetic materials on the Wassenaar Arrangement Munitions List and certain chemicals	Cat 1–19
1C101	Materials for reduced observables such as Radar Reflectivity, Ultraviolet/Infrared Signatures and Acoustic Signatures (i.e., Stealth Technology), other than those controlled by 1C001, for applications usable in rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300km, and their subsystems.	Cat 1–20
1C102	Resaturated pyrolyzed carbon–carbon materials designed for space launch vehicles specified in 9A004 or sounding rockets specified in 9A104. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121)	Cat 1–21
1C107	Graphite and ceramic materials, other than those controlled by 1C007	Cat 1–21
1C111	Propellants and constituent chemicals for propellants, other than those specified in 1C011, as follows (see List of Items Controlled)	Cat 1–21
1C116	Maraging steels (iron alloys generally characterized by high nickel, very low carbon content and the use of substitutional elements or precipitates to produce strengthening and age-hardening of the alloy) having an ultimate tensile strength equal to or greater than 1.5 GPa, measured at 293 K (20°C), in the form of sheet, plate or tubing with a wall or plate thickness equal to or less than 5 mm	Cat 1–22
1C117	Tungsten, molybdenum and alloys of these metals in the form of uniform, spherical or atomized particles of 500 micrometer diameter or less with a purity of 97% or greater for fabrication of rocket motor components, i.e., heat shields, nozzle substrates, nozzle throats and thrust vector control surfaces.	Cat 1–22
1C118	Titanium–stabilized duplex stainless steel (Ti–DSS), having all of the following characteristics (see List of Items Controlled).	Cat 1–22
1C202	Alloys, other than those controlled by 1C002.a.2.c or .d	Cat 1–23
1C210	“Fibrous or filamentary materials” or prepregs, other than those controlled by 1C010.a, .b or .e	Cat 1–23
1C216	Maraging steel, other than that controlled by 1C116, “capable of” an ultimate tensile strength of 2,050 MPa or more, at 293 K (20° C).	Cat 1–23
1C225	Boron and boron compounds, mixtures and loaded materials in which the boron–10 isotope is more than 20% by weight of the total boron content.	Cat 1–24
1C226	Tungsten, tungsten carbide, and alloys containing more than 90% tungsten by weight, having a mass greater than 20 kg and in forms with a hollow cylindrical symmetry (including cylinder segments) with an inside diameter greater than 100 mm, but less than 300 mm, <i>except</i> manufactures specially designed for the use as weights or gamma–ray collimators	Cat 1–24
1C227	Calcium (high purity) containing both less than 1,000 parts per million by weight of metallic impurities other than magnesium and less than 10 parts per million by weight of boron.	Cat 1–24
1C228	Magnesium (high purity) containing both less than 200 parts per million by weight of metallic impurities other than calcium and less than 10 parts per million of boron.	Cat 1–24
1C229	Bismuth with a purity of 99.99% or greater by weight and containing less than 10 parts per million by weight of silver.	Cat 1–25
1C230	Beryllium metal, alloys containing more than 50% of beryllium by weight, beryllium compounds, or manufactures thereof, and waste and scrap of any of the foregoing.	Cat 1–25
1C231	Hafnium metal, alloys and compounds of hafnium containing more than 60% hafnium by weight, and manufactures thereof, and waste and scrap of any of the foregoing	Cat 1–25
1C232	Helium–3 mixtures containing helium–3, and products or devices containing any of the foregoing <i>except</i> a product or device containing less than 1 g of helium–3.	Cat 1–25
1C233	Lithium enriched in the 6 isotope (⁶ Li) to greater than 6.5 weight percent (7.5 atom percent), alloys, compounds, or mixtures containing lithium enriched in the 6 isotope, and products or devices containing any of the foregoing, <i>except</i> thermoluminescent dosimeters.	Cat 1–25
1C234	Zirconium with a hafnium content of less than 1 part hafnium to 500 parts zirconium by weight, in the form of metal, alloys containing more than 50% zirconium by weight, compounds, or manufactures thereof, <i>except</i> zirconium in the form of foil having a thickness not exceeding 0.10 mm	Cat 1–26
1C235	Tritium, tritium compounds, mixtures containing tritium in which the ratio of tritium to hydrogen atoms exceeds 1 part in 1000, and products or devices containing any of the foregoing; <i>except</i> , a product or device containing not more than 1.48 x 10 ³ GBq (40 Ci) of tritium	Cat 1–26
1C236	Alpha-emitting radionuclides having an alpha half-life of 10 days or greater, but less than 200 years, compounds or mixtures containing any of these radionuclides with a total alpha activity of 37 GBq/kg (1Ci/kg) or greater, and products or devices containing any of the foregoing, <i>except</i> a product or device containing less than 3.7 GBq (100 millicuries of alpha activity).	Cat 1–26

ECCN	Description	Page
1C237	Radium-226, radium-226 alloys, radium-226 compounds, mixtures containing radium-226, manufactures thereof, and products or devices containing any of the foregoing, <i>except</i> medical applicators, or products or devices containing not more than 0.37 GBq (10 millicuries of radium-226.	Cat 1-26
1C238	Chlorine trifluoride (ClF ₃)	Cat 1-27
1C239	High explosives, other than those controlled by the U.S. Munitions List, or substances or mixtures containing more than 2% thereof, with a crystal density greater than 1.8 gm per cm ³ and having a detonation velocity greater than 8,000 m/s.	Cat 1-27
1C240	Nickel powder or porous nickel metal, other than those controlled by 0C006	Cat 1-27
1C298	Graphite with a boron content of less than 5 parts per million and a density greater than 1.5 grams per cubic centimeter that is intended for use other than in a nuclear reactor.	Cat 1-27
1C350	Chemicals that may be used as precursors for toxic chemical agents	Cat 1-28
1C351	Human and zoonotic pathogens and “toxins”	Cat 1-30
1C352	Animal pathogens	Cat 1-31
1C353	Genetic elements and genetically-modified organisms	Cat 1-32
1C354	Plant pathogens	Cat 1-32
1C355	Chemical Weapons Convention (CWC) Schedule 2 and 3 chemicals and families of chemicals not controlled by ECCN 1C350 or by the Department of State under the ITAR	Cat 1-33
1C360	Select agents not controlled under ECCN 1C351, 1C352, or 1C354.	Cat 1-34
1C395	Mixtures and medical, analytical, diagnostic, and food testing kits not controlled by ECCN 1C350, as follows (see List of Items Controlled).	Cat 1-34
1C980	Inorganic chemicals listed in Supplement No. 1 to part 754 of the EAR that were produced or derived from the Naval Petroleum Reserves (NPR) or became available for export as a result of an exchange of any NPR produced or derived commodities.	Cat 1-35
1C981	Crude petroleum including reconstituted crude petroleum, tar sands & crude shale oil listed in Supplement No. 1 to part 754 of the EAR.	Cat 1-35
1C982	Other petroleum products listed in Supplement No. 1 to part 754 of the EAR that were produced or derived from the Naval Petroleum Reserves (NPR) or became available for export as a result of an exchange of any NPR produced or derived commodities.	Cat 1-35
1C983	Natural gas liquids and other natural gas derivatives listed in Supplement No. 1 to part 754 of the EAR that were produced or derived from the Naval Petroleum Reserves (NPR) or became available for export as a result of an exchange of any NPR produced or derived commodities.	Cat 1-36
1C984	Manufactured gas and synthetic natural gas (except when commingled with natural gas and thus subject to export authorization from the Department of Energy) listed in Supplement No. 1 to part 754 of the EAR that were produced or derived from the Naval Petroleum Reserves (NPR) or became available for export as a result of an exchange of any NPR produced or derived commodities.	Cat 1-36
1C988	Western red cedar (<i>Thuja plicata</i>), logs and timber, and rough, dressed and worked lumber containing wane listed in Supplement No. 2 to part 754 of the EAR.	Cat 1-36
1C990	Fibrous and filamentary materials, not controlled by 1C010 or 1C210, for use in “composite” structures and with a specific modulus of 3.18 x 10 ⁶ m or greater and a specific tensile strength of 7.62 x 10 ⁴ m or greater.	Cat 1-36
1C991	Vaccines, immunotoxins, medical products, diagnostic and food testing kits	Cat 1-36
1C992	Commercial charges and devices containing energetic materials, n.e.s. and nitrogen trifluoride in a gaseous state	Cat 1-37
1C995	Mixtures not controlled by ECCN 1C350, ECCN 1C355 or ECCN 1C395 that contain chemicals controlled by ECCN 1C350 or ECCN 1C355 and medical, analytical, diagnostic, and food testing kits not controlled by ECCN 1C350 or ECCN 1C395 that contain chemicals controlled by ECCN 1C350.d, as follows (see List of Items Controlled).	Cat 1-38
1C996	Hydraulic fluids containing synthetic hydrocarbon oils, having all the following characteristics (see List of Items Controlled)	Cat 1-38
1C997	Ammonium nitrate, including fertilizers and fertilizer blends containing more than 15% by weight ammonium nitrate, except liquid fertilizers (containing any amount of ammonium nitrate) or dry fertilizers containing less than 15% by weight ammonium nitrate.	Cat 1-39
1C998	Non-fluorinated polymeric substances, not controlled by 1C008, as follows (see List of Items Controlled)	Cat 1-39
1C999	Specific materials	Cat 1-39
1D001	“Software” specially designed or modified for the “development”, “production” or “use” of equipment controlled by 1B001 to 1B003.	Cat 1-39
1D002	“Software” for the “development” of organic “matrix”, metal “matrix” or carbon “matrix” laminates or “composites”.	Cat 1-40
1D003	“Software” specially designed or modified to enable equipment to perform the functions of equipment controlled under 1A004.c or 1A004.d.	Cat 1-40

ECCN	Description	Page
1D018	“Software” specially designed or modified for the “development”, “production”, or “use” of items controlled by 1B018	Cat 1–40
1D101	“Software” specially designed or modified for the “use” of commodities controlled by 1B101, 1B102, 1B115, 1B117, 1B118, or 1B119.	Cat 1–40
1D103	“Software” specially designed for reduced observables such as radar reflectivity, ultraviolet/infrared signatures and acoustic signatures, for applications usable in “missiles” or their subsystems.	Cat 1–40
1D201	“Software” specially designed or modified for the “use” of goods controlled by 1B201.	Cat 1–41
1D390	“Software” for process control that is specifically configured to control or initiate “production” of chemicals controlled by 1C350.	Cat 1–41
1D993	“Software” specially designed for the “development”, “production”, or “use” of equipment or materials controlled by 1C210.b or 1C990	Cat 1–41
1D999	Specific software.	Cat 1–41
1E001	“Technology” according to the General Technology Note for the “development” or “production” of items controlled by 1A001.b, 1A001.c, 1A002, 1A003, 1A004, 1A005, 1A006.b, 1A007, 1A008, 1A101, 1B, (except 1B999) or 1C (except 1C355, 1C980 to 1C984, 1C988, 1C990, 1C991, 1C995 to 1C999).	Cat 1–41
1E002	Other “technology” as follows (see List of Items Controlled).	Cat 1–42
1E101	“Technology” according to the General Technology Note for the “development” or “production” of items controlled by 1A001.b, 1A001.c, 1A002, 1A003, 1A004, 1A005, 1A006, 1A007, 1A101, 1B (except 1B999), or 1C (except 1C355, 1C980, to 1C984, 1C988, 1C990, 1C991, 1C992, 1C995 to 1C999)	Cat 1–43
1E102	“Technology” according to the General Technology Note for the “development” of software controlled by 1D001, 1D101 or 1D103.	Cat 1–43
1E103	“Technical data” (including processing conditions) and procedures for the regulation of temperature, pressure or atmosphere in autoclaves or hydroclaves, when used for the “production” of “composites” or partially processed “composites”, usable for equipment or materials specified in 1C007, 1C102, 1C107, 1C116, 1C117, 1C118, 9A110, and 9C110.	Cat 1–43
1E104	“Technology” for the “production” of pyrolytically derived materials formed on a mold, mandrel or other substrate from precursor gases which decompose in the 1,573 K (1,300 °C) to 3,173 K (2,900 °C) temperature range at pressures of 130 Pa (1 mm Hg) to 20 kPa (150 mm Hg), including “technology” for the composition of precursor gases, flow-rates and process control schedules and parameters.	Cat 1–43
1E201	“Technology” according to the General Technology Note for the “use” of items controlled by 1A002, 1A007, 1A202, 1A225 to 1A227, 1B201, 1B225 to 1B232, 1B233.b, 1C002.a.2.c or .d, 1C010.a, 1C010.b, 1C010.e.1, 1C202, 1C210, 1C216, 1C225 to 1C240 or 1D201.	Cat 1–44
1E202	“Technology” according to the General Technology Note for the “development” or “production” of goods controlled by 1A202 or 1A225 to 1A227	Cat 1–44
1E203	“Technology” according to the General Technology Note for the “development” or “production” of “software” controlled by 1D201.	Cat 1–44
1E350	“Technology” according to the “General Technology Note” for facilities designed or intended to produce chemicals controlled by 1C350.	Cat 1–44
1E351	“Technology” according to the “General Technology Note” for the disposal of chemicals or microbiological materials controlled by 1C350, 1C351, 1C352, 1C353, 1C354 or 1C360	Cat 1–44
1E355	“Technology” for the “production” of Chemical Weapons Convention (CWC) Schedule 2 and 3 chemicals	Cat 1–44
1E994	“Technology” for the “development”, “production”, or “use” of fibrous and filamentary materials controlled by 1C990.	Cat 1–45
1E998	“Technology” for the “development” or “production”, of processing equipment controlled by 1B999, and materials controlled by 1C996, 1C997, 1C998, and 1C999.	Cat 1–45
2A001	Anti-friction bearings and bearing systems, as follows, (see List of Items Controlled) and components therefor	Cat 2–1
2A225	Crucibles made of materials resistant to liquid actinide metals	Cat 2–1
2A226	Valves 5 mm or greater in “nominal size”, with a bellows seal, wholly made of or lined with aluminum, aluminum alloy, nickel, or nickel alloy containing more than 60% nickel by weight	Cat 2–1
2A290	Generators and other equipment specially designed, prepared, or intended for use with nuclear plants	Cat 2–2
2A291	Equipment, except items controlled by 2A290, related to nuclear material handling and processing and to nuclear reactors.	Cat 2–2
2A292	Piping, fittings and valves made of, or lined with, stainless steel, copper-nickel alloy or other alloy steel containing 10% or more nickel and/or chromium.	Cat 2–2
2A293	Pumps designed to move molten metals by electromagnetic forces	Cat 2–3

ECCN	Description	Page
2A983	Explosives or detonator detection equipment, both bulk and trace based, consisting of an automated device, or combination of devices for automated decision making to detect the presence of different types of explosives, explosive residue, or detonators; and parts and components, n.e.s.	Cat 2-3
2A984	Concealed object detection equipment operating in the frequency range from 30 GHz to 3000 GHz and having a spatial resolution of 0.5 milliradian up to and including 1 milliradian at a standoff distance of 100 meters; and parts and components, n.e.s.	Cat 2-3
2A991	Bearings and bearing systems not controlled by 2A001	Cat 2-4
2A994	Portable electric generators and specially designed parts	Cat 2-4
2A999	Specific processing equipment	Cat 2-4
2B001	Machine tools and any combination thereof, for removing (or cutting) metals, ceramics or "composites", which, according to the manufacturer's technical specifications, can be equipped with electronic devices for "numerical control"; and specially designed components as follows (see List of Items Controlled)	Cat 2-5
2B002	Numerically controlled optical finishing machine tools equipped for selective material removal to produce non-spherical optical surfaces, having all of the following characteristics (See List of Items Controlled).	Cat 2-6
2B003	"Numerically controlled" or manual machine tools, and specially designed components, controls and accessories therefor, specially designed for the shaving, finishing, grinding or honing of hardened ($R_c = 40$ or more) spur, helical and double-helical gears with a pitch diameter exceeding 1,250 mm and a face width of 15% of pitch diameter or larger finished to a quality of AGMA 14 or better (equivalent to ISO 1328 class 3)	Cat 2-7
2B004	Hot "isostatic presses", having all of the following characteristics described in the List of Items Controlled, and specially designed components and accessories therefor	Cat 2-7
2B005	Equipment specially designed for the deposition, processing and in-process control of inorganic overlays, coatings and surface modifications, as follows, for non-electronic substrates, by processes shown in the Table and associated Notes following 2E003.f, and specially designed automated handling, positioning, manipulation and control components therefor	Cat 2-7
2B006	Dimensional inspection or measuring systems and equipment	Cat 2-8
2B007	"Robots" having any of the following characteristics described in the List of Items Controlled and specially designed controllers and "end-effectors" therefor	Cat 2-9
2B008	Assemblies or units, specially designed for machine tools, or dimensional inspection or measuring systems and equipment, as follows (see List of Items Controlled).	Cat 2-9
2B009	Spin-forming machines and flow-forming machines, which, according to the manufacturer's technical specifications, can be equipped with "numerical control" units or a computer control.	Cat 2-9
2B018	Equipment on the Wassenaar Arrangement Munitions List	Cat 2-10
2B104	"Isostatic presses" other than those controlled by 2B004.	Cat 2-10
2B105	Chemical vapor deposition (CVD) furnaces, other than those controlled by 2B005.a, designed or modified for the densification of carbon-carbon composites	Cat 2-11
2B109	Flow-forming machines, other than those controlled by 2B009, and specially designed components therefor	Cat 2-11
2B116	Vibration test systems, equipment and components therefor.	Cat 2-11
2B117	Equipment and process controls, other than those controlled by 2B004, 2B005.a, 2B104 or 2B105, designed or modified for the densification and pyrolysis of structural composite rocket nozzles and reentry vehicle nose tips	Cat 2-12
2B119	Balancing machines and related equipment, as follows (see List of Items Controlled)	Cat 2-12
2B120	Motion simulators or rate tables (equipment capable of simulating motion), having all of the following characteristics (see List of Items Controlled)	Cat 2-12
2B121	Positioning tables (equipment capable of precise rotary position in any axis), other than those controlled in 2B120, having all the following characteristics (See List of Items Controlled)	Cat 2-13
2B122	Centrifuges capable of imparting accelerations above 100 g and having slip rings capable of transmitting electrical power and signal information	Cat 2-13
2B201	Machine tools, other than those controlled by 2B001 for removing or cutting metals, ceramics or "composites", which, according to manufacturers technical specification, can be equipped with electronic devices for simultaneous "contouring control" in two or more axes	Cat 2-13
2B204	"Isostatic presses," not controlled by 2B004 or 2B104, capable of achieving a maximum working pressure of 69 Mpa (10,000 psi) or greater and having a chamber cavity with an inside diameter in excess of 152 mm (6 inches) and specially designed dies, molds, and controls therefor.	Cat 2-14
2B206	Dimensional inspection machines, devices or systems, other than those controlled by 2B006.	Cat 2-14
2B207	"Robots", or "end-effectors", other than those controlled by 2B007, specially designed to comply with national safety standards applicable to handling high explosives (for example, meeting electrical code rating for high explosives) and specially designed controllers therefor.	Cat 2-14
2B209	Flow forming machines, or spin forming machines capable of flow forming functions, other than those controlled by 2B009 or 2B109, and mandrels.	Cat 2-15

ECCN	Description	Page
2B225	Remote manipulators that can be used to provide remote actions in radiochemical separation operations or hot cells	Cat 2–15
2B226	Controlled atmosphere (vacuum or inert gas) induction furnaces capable of operation above 1,123 K (850 °C) and having induction coils 600 mm or less in diameter, and designed for power inputs of 5 kW or more, and power supplies specially designed therefor with a specified power output of 5 kW or more.	Cat 2–15
2B227	Vacuum or other controlled atmosphere metallurgical melting and casting furnaces and specially configured computer control and monitoring systems therefor.	Cat 2–16
2B228	Rotor fabrication and assembly equipment, rotor straightening equipment, bellows-forming mandrels and dies.	Cat 2–16
2B229	Centrifugal multiplane balancing machines, fixed or portable, horizontal or vertical.	Cat 2–16
2B230	“Pressure transducers” capable of measuring absolute pressure at any point in the range 0 to 13 kPa, with pressure sensing elements made of or protected by nickel, nickel alloy with more than 60% nickel by weight, aluminum or aluminum alloy.	Cat 2–17
2B231	Vacuum pumps with an input throat size of 380 mm or greater with a pumping speed of 15 m ³ /s or greater and capable of producing an ultimate vacuum better than 13.3 mPa	Cat 2–17
2B232	Multistage light gas guns or other high-velocity gun systems (coil, electromagnetic, electrothermal, and other advanced systems) capable of accelerating projectiles to 2 km/s or greater.	Cat 2–17
2B290	“Numerically controlled” machine tools not controlled by 2B001 or 2B201.	Cat 2–17
2B350	Chemical manufacturing facilities and equipment, except valves controlled by 2A226 or 2A292.	Cat 2–18
2B351	Toxic gas monitoring systems and their dedicated detecting components (i.e., detectors, sensor devices, and replaceable sensor cartridges), as follows, except those systems and detectors controlled by ECCN 1A004.c (see List of Items Controlled)	Cat 2–19
2B352	Equipment capable of use in handling biological materials.	Cat 2–20
2B991	Numerical control units for machine tools and numerically controlled machine tools, n.e.s	Cat 2–21
2B992	Non-“numerically controlled” machine tools for generating optical quality surfaces, and specially designed components therefor	Cat 2–21
2B993	Gearmaking and/or finishing machinery not controlled by 2B003 capable of producing gears to a quality level of better than AGMA 11	Cat 2–22
2B996	Dimensional inspection or measuring systems or equipment not controlled by 2B006	Cat 2–22
2B997	“Robots” not controlled by 2B007 or 2B207 that are capable of employing feedback information in real-time processing from one or more sensors to generate or modify “programs” or to generate or modify numerical program data	Cat 2–22
2B998	Assemblies, units or inserts specially designed for machine tools controlled by 2B991, or for equipment controlled by 2B993, 2B996 or 2B997	Cat 2–22
2B999	Specific processing equipment.	Cat 2–23
2D001	“Software”, other than that controlled by 2D002, specially designed or modified for the “development”, “production” or “use” of equipment controlled by 2A001 or 2B001 to 2B009	Cat 2–23
2D002	“Software” for electronic devices, even when residing in an electronic device or system, enabling such devices or systems to function as a “numerical control” unit, capable of coordinating simultaneously more than 4 axes for “contouring control”	Cat 2–23
2D018	“Software” for the “development”, “production” or “use” of equipment controlled by 2B018	Cat 2–24
2D101	“Software” specially designed or modified for the “use” of equipment controlled by 2B104, 2B105, 2B109, 2B116, 2B117, or 2B119 to 2B122.	Cat 2–24
2D201	“Software” specially designed for the “use” of equipment controlled by 2B204, 2B206, 2B207, 2B209, 2B227 or 2B229	Cat 2–24
2D202	“Software” specially designed or modified for the “development”, “production” or “use” of equipment controlled by 2B201	Cat 2–24
2D290	“Software” specially designed or modified for the “development”, “production” or “use” of items controlled by 2A290, 2A291, 2A292, 2A293, or 2B290	Cat 2–24
2D351	Dedicated “software” for toxic gas monitoring systems and their dedicated detecting components controlled by ECCN 2B351	Cat 2–25
2D983	“Software” specially designed or modified for the “development”, “production” or “use” of equipment controlled by 2A983	Cat 2–25
2D984	“Software” “required” for the “development”, “production” or “use” of concealed object detection equipment controlled by 2A984	Cat 2–25
2D991	“Software” specially designed for the “development”, “production”, or “use” of equipment controlled by 2B991, 2B993, or 2B996, 2B997, and 2B998	Cat 2–25
2D992	Adaptive control software.	Cat 2–25
2D994	“Software” specially designed for the “development” or “production” of portable electric generators controlled by 2A994.	Cat 2–26
2E001	“Technology” according to the General Technology Note for the “development” of equipment or “software” controlled by 2A (except 2A983, 2A991, or 2A994), 2B (except 2B991, 2B993, 2B996, 2B997, or 2B998), or 2D (except 2D983, 2D991, 2D992, or 2D994).	Cat 2–26

ECCN	Description	Page
2E002	“Technology” according to the General Technology Note for the “production” of equipment controlled by 2A (except 2A983, 2A991, or 2A994), or 2B (except 2B991, 2B993, 2B996, 2B997, or 2B998)	Cat 2–26
2E003	Other “technology”	Cat 2–27
2E018	“Technology” for the “use” of equipment controlled by 2B018	Cat 2–33
2E101	“Technology” according to the General Technology Note for the “use” of equipment or “software” controlled by 2B004, 2B009, 2B104, 2B105, 2B109, 2B116, 2B117, 2B119 to 2B122, 2D001, 2D002 or 2D101	Cat 2–34
2E201	“Technology” according to the General Technology Note for the “use” of equipment or “software” controlled by 2A225, 2A226, 2B001, 2B006, 2B007.b, 2B007.c, 2B201, 2B204, 2B206, 2B207, 2B209, 2B225 to 2B232, 2D002, 2D201 or 2D202 for NP reasons.	Cat 2–34
2E290	“Technology” according to the General Technology Note for the “use” of equipment controlled by 2A290, 2A291, 2A292, 2A293, and 2B290	Cat 2–34
2E301	“Technology” according to the “General Technology Note” for “use” of items controlled by 2B350, 2B351 and 2B352	Cat 2–34
2E983	“Technology” specially designed or modified for the “development”, “production” or “use” of equipment controlled by 2A983, or the “development” of software controlled by 2D983	Cat 2–34
2E984	“Technology” “required” for the “development”, “production” or “use” of equipment controlled by 2A984, or “required” for the “development” of software controlled by 2D984	Cat 2–35
2E991	“Technology” for the “use” of equipment controlled by 2B991, 2B993, 2B996, or 2B997	Cat 2–35
2E994	“Technology” for the “use” of portable electric generators controlled by 2A994	Cat 2–35
3A001	Electronic components and specially designed components therefor, as follows.	Cat 3–1
3A002	General purpose electronic equipment and accessories therefor, as follows.	Cat 3–5
3A003	Spray cooling thermal management systems employing closed loop fluid handling and reconditioning equipment in a sealed enclosure where a dielectric fluid is sprayed onto electronic components using specially designed spray nozzles that are designed to maintain electronic components within their operating temperature range, and specially designed components therefor.	Cat 3–7
3A101	Electronic equipment, devices and components, other than those controlled by 3A001.	Cat 3–7
3A201	Electronic components, other than those controlled by 3A001.	Cat 3–7
3A225	Frequency changers (also known as converters or inverters) or generators, other than those controlled by 0B001.c.11.	Cat 3–8
3A226	High-power direct current power supplies, other than those controlled by 0B001.j.6, capable of continuously producing, over a time period of 8 hours, 100 V or greater with current output of 500 A or greater and with current or voltage regulation better than 0.1%.	Cat 3–8
3A227	High-voltage direct current power supplies, other than those controlled in 0B001.j.5, capable of continuously producing, over a time period of 8 hours, 20,000 V or greater with current output of 1 A or greater and with current or voltage regulation better than 0.1% over a time period of 8 hours	Cat 3–9
3A228	Switching devices.	Cat 3–9
3A229	Firing sets and equivalent high-current pulse generators (for detonators controlled by 3A232).	Cat 3–9
3A230	High-speed pulse generators with output voltages greater than 6 volts into a resistive load of less than 55 ohms, and with pulse transition times less than 500 picoseconds.	Cat 3–10
3A231	Neutron generator systems, including tubes, designed for operation without an external vacuum system and utilizing electrostatic acceleration to induce a tritium-deuterium nuclear reaction.	Cat 3–10
3A232	Detonators and multipoint initiation systems.	Cat 3–10
3A233	Mass spectrometers, other than those controlled by 0B002.g, capable of measuring ions of 230 atomic mass units or greater and having a resolution of better than 2 parts in 230, and ion sources therefor.	Cat 3–10
3A292	Oscilloscopes and transient recorders other than those controlled by 3A002.a.5, and specially designed components therefor.	Cat 3–11
3A980	Voice print identification and analysis equipment and parts, n.e.s.	Cat 3–11
3A981	Polygraphs (except biomedical recorders designed for use in medical facilities for monitoring biological and neurophysical responses); fingerprint analyzers, cameras and equipment, n.e.s.; automated fingerprint and identification retrieval systems, n.e.s.; psychological stress analysis equipment; electronic monitoring restraint devices; and specially designed parts and accessories, n.e.s.	Cat 3–11
3A991	Electronic devices and components not controlled by 3A001	Cat 3–11
3A992	General purpose electronic equipment not controlled by 3A002	Cat 3–13
3A999	Specific processing equipment.	Cat 3–13
3B001	Equipment for the manufacturing of semiconductor devices or materials, as follows (see List of Items Controlled), and specially designed components and accessories therefor	Cat 3–13
3B002	Test equipment, specially designed for testing finished or unfinished semiconductor devices, as follows (see List of Items Controlled), and specially designed components and accessories therefor.	Cat 3–14

ECCN	Description	Page
3B991	Equipment not controlled by 3B001 for the manufacture of electronic components and materials, and specially designed components and accessories therefor	Cat 3–15
3B992	Equipment not controlled by 3B002 for the inspection or testing of electronic components and materials, and specially designed components and accessories therefor	Cat 3–17
3C001	Hetero–epitaxial materials consisting of a “substrate” having stacked epitaxially grown multiple layers	Cat 3–19
3C002	Resist materials, as follows (see List of Items Controlled), and “substrates” coated with the following resists	Cat 3–19
3C003	Organo–inorganic compounds as follows (see List of Items Controlled).	Cat 3–19
3C004	Hydrides of phosphorus, arsenic or antimony, having a purity better than 99.999%, even diluted in inert gases or hydrogen	Cat 3–19
3C005	Silicon carbide (SiC) gallium nitride (GaN), aluminum nitride (AlN) or aluminum gallium nitride (AlGaN) “substrates”, or ingots, boules, or other preforms of those materials, having resistivities greater than 10,000 ohm–cm at 20°C.	Cat 3–20
3C006	“Substrates” specified in 3C005 with at least one epitaxial layer of silicon carbide, gallium nitride, aluminum nitride or aluminum gallium nitride.	Cat 3–20
3C992	Positive resists designed for semiconductor lithography specially adjusted (optimized) for use at wavelengths between 370 and 245 nm	Cat 3–20
3D001	“Software” specially designed for the “development” or “production” of equipment controlled by 3A001.b to 3A002.g or 3B (except 3B991 and 3B992)	Cat 3–20
3D002	“Software” specially designed for the “use” of equipment controlled by 3B001.a to .f, or 3B002.	Cat 3–20
3D003	Physics-based simulation “software” specially designed for the “development” of lithographic, etching or deposition processes for translating masking patterns into specific topographical patterns in conductors, dielectrics or semiconductor materials.	Cat 3–21
3D004	“Software” specially designed for the “development” of the equipment controlled by 3A003.	Cat 3–21
3D101	“Software” specially designed or modified for the “use” of equipment controlled by 3A101.b.	Cat 3–21
3D980	“Software” specially designed for the “development”, “production”, or “use” of items controlled by 3A980 and 3A981	Cat 3–21
3D991	“Software” specially designed for the “development”, “production”, or “use” of electronic devices or components controlled by 3A991, general purpose electronic equipment controlled by 3A992, or manufacturing and test equipment controlled by 3B991 and 3B992; or “software” specially designed for the “use” of equipment controlled by 3B001.g and .h.	Cat 3–21
3E001	“Technology” according to the General Technology Note for the “development” or “production” of equipment or materials controlled by 3A (except 3A292, 3A980, 3A981, 3A991, 3A992 or 3A999), 3B (except 3B991 and 3B992) or 3C (except 3C992)	Cat 3–22
3E002	“Technology” according to the General Technology Note other than that controlled in 3E001 for the “development” or “production” of a “microprocessor microcircuits”, “micro-computer microcircuits” and microcontroller microcircuit core, having an arithmetic logic unit with an access width of 32 bits or more and any of the following features or characteristics (See List of Items Controlled).	Cat 3–22
3E003	Other “technology” for the “development” or “production” of the following (see List of Items Controlled)	Cat 3–23
3E101	“Technology” according to the General Technology Note for the “use” of equipment or “software” controlled by 3A001.a.1 or .2, 3A101, or 3D101.	Cat 3–23
3E102	“Technology” according to the General Technology Note for the “development” of “software” controlled by 3D101	Cat 3–23
3E201	“Technology” according to the General Technology Note for the “use” of equipment controlled by 3A001.e.2 or .e.3, 3A201 or 3A225 to 3A233	Cat 3–23
3E292	“Technology” according to the General Technology Note for the “development”, “production”, or “use” of equipment controlled by 3A292	Cat 3–24
3E980	“Technology” specially designed for “development”, “production”, or “use” of items controlled by 3A980 and 3A981	Cat 3–24
3E991	“Technology” for the “development”, “production”, or “use” of electronic devices or components controlled by 3A991, general purpose electronic equipment controlled by 3A992, or manufacturing and test equipment controlled by 3B991 or 3B992, or material controlled by 3C992.	Cat 3–24
4A001	Electronic computers and related equipment, having any of the following (see List of Items Controlled) and “electronic assemblies” and specially designed components therefor.	Cat 4–1
4A003	“Digital computers”, “electronic assemblies”, and related equipment therefor, as follows, and specially designed components therefor.	Cat 4–1
4A004	Computers, as follows (see List of Items Controlled) and specially designed related equipment, “electronic assemblies” and components therefor	Cat 4–2
4A101	Analog computers, “digital computers” or digital differential analyzers, other than those controlled by 4A001 designed or modified for use in “missiles”.	Cat 4–2

Index 60

ECCN	Description	Page
4A102	"Hybrid computers" specially designed for modelling, simulation or design integration of "missiles" (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121)	Cat 4-3
4A980	Computers for fingerprint equipment, n.e.s	Cat 4-3
4A994	Computers, "electronic assemblies", and related equipment not controlled by 4A001 or 4A003, and specially designed components therefor	Cat 4-3
4D001	"Software" as follows (see List of Items Controlled).	Cat 4-4
4D002	"Software" specially designed or modified to support "technology" controlled by 4E (except 4E980, 4E992, and 4E993)	Cat 4-4
4D980	"Software" specially designed for the "development", "production", or "use" of items controlled by 4A980	Cat 4-4
4D993	"Program" proof and validation "software", "software" allowing the automatic generation of "source codes", and operating system "software" that are specially designed for real time processing equipment (see List of Items Controlled).	Cat 4-4
4D994	"Software" other than that controlled in 4D001 specially designed or modified for the "development", "production", or "use" of equipment controlled by 4A101, 4A994, 4B994, and materials controlled by 4C994	Cat 4-5
4E001	"Technology" as follows (see List of Items Controlled).	Cat 4-5
4E980	"Technology" for the "development", "production", or "use" of items controlled by 4A980	Cat 4-5
4E992	"Technology" other than that controlled in 4E001 for the "development", "production", or "use" of equipment controlled by 4A994 or "software" controlled by 4D993 or 4D994.	Cat 4-5
4E993	"Technology" for the "development" or "production" of equipment designed for "multi-data-stream processing"	Cat 4-5
5A001	Telecommunications systems, equipment, components and accessories, as follows.	Cat5-Pt1-1
5A101	Telemetering and telecontrol equipment, including ground equipment, designed or modified for unmanned aerial vehicles or rocket systems (including ballistic missile systems, space launch vehicles, sounding rockets, cruise missile systems, target drones, and reconnaissance drones) capable of a maximum "range" equal to or greater than 300km.	Cat 5-Pt1-2
5A980	Devices primarily useful for the surreptitious interception of wire, oral or electronic communications; and parts and accessories therefor	Cat 5-Pt1-3
5A991	Telecommunication equipment, not controlled by 5A001	Cat 5-Pt1-3
5B001	Telecommunication test, inspection and production equipment, components and accessories, as follows (See List of Items Controlled).	Cat 5-Pt1-5
5B991	Telecommunications test equipment.	Cat 5-Pt1-5
5C991	Preforms of glass or of any other material optimized for the manufacture of optical fibers controlled by 5A991	Cat 5-Pt1-5
5D001	"Software" as follows (see List of Items Controlled)	Cat 5-Pt1-5
5D101	"Software" specially designed or modified for the "use" of items controlled by 5A101	Cat 5-Pt1-6
5D980	Other "software", as follows (see List of Items Controlled)	Cat 5-Pt1-6
5D991	"Software" specially designed or modified for the "development", "production", or "use" of equipment controlled by 5A991 and 5B991, and dynamic adaptive routing software as described in the List of Items Controlled.	Cat 5-Pt1-6
5E001	"Technology" as follows (see List of Items Controlled).	Cat 5-Pt1-6
5E101	"Technology" according to the General Technology Note for the "development", "production" or "use" of equipment or software controlled by 5A101 or 5D101	Cat 5-Pt1-7
5E980	"Technology" primarily useful for the "development", "production", or "use" of equipment controlled by 5A980.	Cat 5-Pt1-8
5E991	"Technology" for the "development", "production" or "use" of equipment controlled by 5A991 or 5B991, or "software" controlled by 5D991	Cat 5-Pt1-8
5A002	"Information security" systems, equipment and components therefor, as follows	Cat 5-Pt2-9
5A992	Equipment not controlled by 5A002	Cat 5-Pt2-10
5B002	"Information security" test, inspection and "production" equipment, as follows (see List of Items Controlled)	Cat 5-Pt2-10
5D002	"Software" as follows (see List of Items Controlled)	Cat 5-Pt2-11
5D992	"Information security" "software" not controlled by 5D002	Cat 5-Pt2-11

ECCN	Description	Page
5E002	“Technology” according to the General Technology Note for the “development”, “production” or “use” of equipment controlled by 5A002 or 5B002 of “software” controlled by 5D002.a or 5D002.e	Cat 5–Pt2–11
5E992	“Information security” “technology”, not controlled by 5E002	Cat 5–Pt2–12
6A001	Acoustic systems equipment and components, as follows	Cat 6–1
6A002	Optical sensors	Cat 6–3
6A003	Cameras	Cat 6–5
6A004	Optical equipment and components, as follows (see List of Items Controlled)	Cat 6–6
6A005	“Lasers”, (other than those described in 0B001.g.5 or .h.6), components and optical equipment.	Cat 6–7
6A006	“Magnetometers”, “magnetic gradiometers”, “intrinsic magnetic gradiometers”, underwater electric field sensors, compensation systems, and specially designed components therefor, as follows (see List of Items Controlled).	Cat 6–12
6A007	Gravity meters (gravimeters) and gravity gradiometers.	Cat 6–12
6A008	Radar systems, equipment and assemblies having any of the following (see List of Items Controlled), and specially designed components therefor	Cat 6–13
6A102	Radiation hardened detectors, other than those controlled by 6A002, specially designed or modified for protecting against nuclear effects (e.g., Electromagnetic Pulse (EMP), X-rays, combined blast and thermal effects) and usable for “missiles”, designed or rated to withstand radiation levels which meet or exceed a total irradiation dose of 5×10^5 rads (silicon)	Cat 6–14
6A103	Radomes designed to withstand a combined thermal shock greater than 100 cal/sq cm accompanied by a peak over pressure of greater than 50 kPa, usable in protecting “missiles” against nuclear effects (e.g. Electromagnetic Pulse (EMP), X-rays, combined blast and thermal effects), and usable for “missiles”. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 6–14
6A107	Gravity meters (gravimeters) and specially designed components for gravity meters and gravity gradiometers, as follows (see List of Items Controlled)	Cat 6–14
6A108	Radar systems and tracking systems, other than those controlled by 6A008	Cat 6–14
6A202	Photomultiplier tubes with a photocathode area of greater than 20 cm ² having an anode pulse rise time of less than 1 ns.	Cat 6–15
6A203	Cameras and components, other than those controlled by 6A003.	Cat 6–15
6A205	“Lasers”, “laser” amplifiers and oscillators, other than those controlled by 0B001.g.5, 0B001.h.6 or 6A005, as follows (see List of Items Controlled)	Cat 6–15
6A225	Velocity interferometers for measuring velocities in excess of 1 km/s during time intervals of less than 10 microsecond	Cat 6–16
6A226	Pressure sensors	Cat 6–16
6A991	Marine or terrestrial acoustic equipment, n.e.s., capable of detecting or locating underwater objects or features or positioning surface vessels or underwater vehicles; and specially designed components, n.e.s.	Cat 6–16
6A992	Optical Sensors, not controlled by 6A002	Cat 6–17
6A993	Cameras, not controlled by 6A003 or 6A203, as follows (see List of Items Controlled).	Cat 6–17
6A994	Optics, not controlled by 6A004	Cat 6–17
6A995	“Lasers”, (see List of Items Controlled)	Cat 6–17
6A996	“Magnetometers” not controlled by 6A006, “Superconductive” electromagnetic sensors, and specially designed components therefor, as follows (see List of Items Controlled).	Cat 6–18
6A997	Gravity meters (gravimeters) for ground use, n.e.s.	Cat 6–19
6A998	Radar systems, equipment and assemblies, n.e.s., (see List of Items Controlled), and specially designed components therefor	Cat 6–19
6A999	Specific processing equipment	Cat 6–19
6B004	Optical equipment as follows (see List of Items Controlled)	Cat 6–19
6B007	Equipment to produce, align and calibrate land-based gravity meters with a static accuracy of better than 0.1 mgal	Cat 6–19
6B008	Pulse radar cross-section measurement systems having transmit pulse widths of 100 ns or less and specially designed components therefor	Cat 6–19
6B108	Systems, other than those controlled by 6B008, specially designed for radar cross section measurement usable for rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km and their subsystems	Cat 6–20
6B995	Specially designed or modified equipment, including tools, dies, fixtures or gauges, and other specially designed components and accessories therefor	Cat 6–20
6C002	Optical sensor materials as follows (see List of Items Controlled)	Cat 6–20
6C004	Optical materials as follows (see List of Items Controlled)	Cat 6–20
6C005	Synthetic crystalline “laser” host material in unfinished form as follows (see List of Items Controlled).	Cat 6–21

Index 62

ECCN	Description	Page
6C992	Optical sensing fibers not controlled by 6A002.d.3 which are modified structurally to have a 'beat length' of less than 500 mm (high birefringence) or optical sensor materials not described in 6C002.b and having a zinc content of equal to or more than 6% by 'mole fraction.'	Cat 6–21
6C994	Optical materials	Cat 6–21
6D001	"Software" specially designed for the "development" or "production" of equipment controlled by 6A004, 6A005, 6A008 or 6B008	Cat 6–21
6D002	"Software" specially designed for the "use" of equipment controlled by 6A002.b, 6A008 or 6B008	Cat 6–22
6D003	Other "software" as follows (see List of Items Controlled)	Cat 6–22
6D102	"Software" specially designed or modified for the "use" of goods controlled by 6A108	Cat 6–23
6D103	"Software" that processes post-flight, recorded data, enabling determination of vehicle position throughout its flight path, specially designed or modified for "missiles"	Cat 6–23
6D991	"Software" specially designed for the "development", "production", or "use" of equipment controlled by 6A002.e, 6A991, 6A996, 6A997, or 6A998	Cat 6–23
6D992	"Software" specially designed for the "development" or "production" of equipment controlled by 6A992, 6A994, or 6A995	Cat 6–23
6D993	Other "software" not controlled by 6D003	Cat 6–24
6D994	"Software" designed or modified for cameras incorporating "focal plane arrays" specified by 6A002.a.3.f and designed or modified to remove a frame rate restriction and allow the camera to exceed the same rate specified in 6A003.b.4 Note 3.a	Cat 6–24
6E001	"Technology" according to the General Technology Note for the "development" of equipment, materials or "software" controlled by 6A (except 6A991, 6A992, 6A994, 6A995, 6A996, 6A997, or 6A998), 6B (except 6B995), 6C (except 6C992 or 6C994), or 6D (except 6D991, 6D992, or 6D993)	Cat 6–24
6E002	"Technology" according to the General Technology Note for the "production" of equipment or materials controlled by 6A (except 6A991, 6A992, 6A994, 6A995, 6A996, 6A997 or 6A998), 6B (except 6B995) or 6C (except 6C992 or 6C994)	Cat 6–25
6E003	Other "technology" as follows (see List of Items Controlled).	Cat 6–25
6E101	"Technology" according to the General Technology Note for the "use" of equipment or "software" controlled by 6A002, 6A007.b and .c, 6A008, 6A102, 6A107, 6A108, 6B108, 6D102 or 6D103	Cat 6–26
6E201	"Technology" not controlled by 6E001 or 6E002, according to the General Technology Note for the "use" of equipment controlled by 6A003.a.2, 6A003.a.3, 6A003.a.4, 6A005.a.2, 6A005.a.4, 6A005.b.2.b, 6A005.b.3.a, 6A005.b.4.b, 6A005.b.6.b, 6A005.c.1.b, 6A005.c.2.b, 6A005.d.3.c, or 6A005.d.4.c (as described in the license requirement note to 6A005); 6A202, 6A203, 6A205, 6A225 or 6A226.	Cat 6–26
6E991	"Technology" for the "development", "production" or "use" equipment controlled by 6A991, 6A996, 6A997, or 6A998	Cat 6–26
6E992	"Technology" for the "development" or "production" of equipment, materials or "software" controlled by 6A992, 6A994, or 6A995, 6B995, 6C992, 6C994, or 6D993	Cat 6–26
6E993	Other "technology", not controlled by 6E003.	Cat 6–26
7A001	Accelerometers as follows (see List of Items Controlled), and specially designed components therefor	Cat 7–1
7A002	Gyros, or angular rate sensors, having any of the following characteristics (see List of Items Controlled), and specially designed components therefor	Cat 7–1
7A003	Inertial Systems and specially designed components, as follows	Cat 7–1
7A004	Gyro-astro compasses, and other devices which derive position or orientation by means of automatically tracking celestial bodies or satellites, with an azimuth accuracy of equal to or less (better) than 5 seconds of arc	Cat 7–2
7A005	Global Navigation Satellite Systems (GNSS) receiving equipment having any of the following and specially designed components therefor.	Cat 7–3
7A006	Airborne altimeters operating at frequencies other than 4.2 to 4.4 GHz inclusive and having any of the following (see List of Items Controlled)	Cat 7–3
7A008	Underwater sonar navigation systems, using Doppler velocity or correlation velocity logs integrated with a heading source, and having a positioning accuracy of equal to or less (better) than 3% of distance traveled "Circular Error Probable" (CEP), and specially designed components therefor.	Cat 7–3
7A101	Accelerometers, other than those controlled by 7A001 (see List of Items Controlled), and specially designed components therefor	Cat 7–3
7A102	All types of gyros, other than those controlled by 7A002, usable in rockets, missiles, or unmanned aerial vehicles capable of achieving a "range" equal to or greater than 300 km, with a rated "drift rate" 'stability' of less than 0.5° (1 sigma or rms) per hour in a 1g environment and specially designed components therefor	Cat 7–3
7A103	Instrumentation, navigation equipment and systems, other than those controlled by 7A003, and specially designed components therefor	Cat 7–4

ECCN	Description	Page
7A104	Gyro—astro compasses and other devices, other than those controlled by 7A004, which derive position or orientation by means of automatically tracking celestial bodies or satellites and specially designed components therefor	Cat 7–4
7A105	Receiving equipment for Global Navigation Satellite Systems (GNSS) (e.g. GPS, GLONASS, or Galileo) having any of the following characteristics, and specially designed components therefor. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls See 22 CFR part 121)	Cat 7–4
7A106	Altimeters, other than those controlled by 7A006, of radar or laser radar type, designed or modified for use in “missiles”. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121)	Cat 7–4
7A107	Three axis magnetic heading sensors having <i>all</i> of the following characteristics, and specially designed components therefor.	Cat 7–5
7A115	Passive sensors for determining bearing to specific electromagnetic source (direction finding equipment) or terrain characteristics, designed or modified for use in “missiles”. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121)	Cat 7–5
7A116	Flight control systems (hydraulic, mechanical, electro-optical, or electro-mechanical flight control systems (including fly-by-wire systems) and attitude control equipment) designed or modified for “missiles”. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121)	Cat 7–5
7A117	“Guidance sets” capable of achieving system accuracy of 3.33% or less of the range (e.g., a “CEP” of 10 km or less at a range of 300 km). (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121)	Cat 7–5
7A994	Other navigation direction finding equipment, airborne communication equipment, all aircraft inertial navigation systems not controlled under 7A003 or 7A103, and other avionic equipment, including parts and components, n.e.s	Cat 7–5
7B001	Test, calibration or alignment equipment specially designed for equipment controlled by 7A (except 7A994)	Cat 7–5
7B002	Equipment specially designed to characterize mirrors for ring “laser” gyros, as follows (see List of Items Controlled),	Cat 7–6
7B003	Equipment specially designed for the “production” of equipment controlled by 7A (except 7A994)	Cat 7–6
7B101	“Production equipment”, and other test, calibration, and alignment equipment, other than that described in 2B119 to 2B122, 7B003, and 7B102, designed or modified to be used with equipment controlled by 7A001 to 7A004 or 7A101 to 7A104	Cat 7–6
7B102	Equipment, other than those controlled by 7B002, designed or modified to characterize mirrors, for laser gyro equipment, as follows (see List of Items Controlled)	Cat 7–6
7B103	Specially designed “production facilities” for equipment controlled by 7A117. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 7–7
7B994	Other equipment for the test, inspection, or “production” of navigation and avionics equipment	Cat 7–7
7D001	“Software” specially designed or modified for the “development” or “production” of equipment controlled by 7A (except 7A994) or 7B (except 7B994)	Cat 7–7
7D002	“Source code” for the “use” of any inertial navigation equipment including inertial equipment not controlled by 7A003 or 7A004, or Attitude and Heading Reference Systems (‘AHRS’)	Cat 7–7
7D003	Other “software” as follows (see List of Items Controlled).	Cat 7–7
7D101	“Software” specially designed or modified for the “use” of equipment controlled by 7A001 to 7A006, 7A101 to 7A107, 7A115, 7A116, 7B001, 7B002, 7B003, 7B101, 7B102, or 7B103	Cat 7–8
7D102	Integration “software”, as follows (See List of Items Controlled)	Cat 7–8
7D103	“Software” specially designed for modelling or simulation of the “guidance sets” controlled by 7A117 or for their design integration with “missiles”. (This entry is subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 7–8
7D994	“Software”, n.e.s., for the “development”, “production”, or “use” of navigation, airborne communication and other avionics	Cat 7–8
7E001	“Technology” according to the General Technology Note for the “development” of equipment or “software” controlled by 7A (except 7A994), 7B (except 7B994) or 7D (except 7D994)	Cat 7–9
7E002	“Technology” according to the General Technology Note for the “production” of equipment controlled by 7A (except 7A994) or 7B (except 7B994)	Cat 7–9
7E003	“Technology” according to the General Technology Note for the repair, refurbishing or overhaul of equipment controlled by 7A001 to 7A004	Cat 7–9
7E004	Other “technology” as follows (See List of Items Controlled).	Cat 7–9
7E101	“Technology”, according to the General Technology Note for the “use” of equipment controlled by 7A001 to 7A006, 7A101 to 7A107, 7A115 to 7A117, 7B001, 7B002, 7B003, 7B101, 7B102, 7B103, or 7D101 to 7D103	Cat 7–10

ECCN	Description	Page
7E102	“Technology” for protection of avionics and electrical subsystems against electromagnetic pulse (EMP) and electromagnetic interference (EMI) hazards, from external sources ..	Cat 7–10
7E104	Design “Technology” for the integration of the flight control, guidance, and propulsion data into a flight management system, designed or modified for “missiles”, for optimization of rocket system trajectory. (This entry is subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 7–11
7E994	“Technology”, n.e.s., for the “development”, “production”, or “use” of navigation, airborne communication, and other avionics equipment	Cat 7–11
8A001	Submersible vehicles and surface vessels.	Cat 8–1
8A002	Marine systems, equipment and components, as follows (see List of Items Controlled).	Cat 8–1
8A018	Items on the Wassenaar Arrangement Munitions List	Cat 8–4
8A918	Marine boilers	Cat 8–4
8A992	Vessels, marine systems or equipment, not controlled by 8A001, 8A002 or 8A018, and specially designed parts therefor	Cat 8–4
8B001	Water tunnels, having a background noise of less than 100 dB (reference 1 μPa, 1 Hz) in the frequency rang from 0 to 500 Hz, designed for measuring acoustic fields generated by a hydro-flow around propulsion system models	Cat 8–5
8C001	Syntactic foam designed for underwater use and having all of the following (see List of Items Controlled).	Cat 8–5
8D001	“Software” specially designed or modified for the “development”, “production” or “use” of equipment or materials controlled by 8A (except 8A018, 8A992), 8B or 8C	Cat 8–5
8D002	Specific “software” specially designed or modified for the “development”, “production”, repair, overhaul or refurbishing (re-machining) of propellers specially designed for underwater noise reduction	Cat 8–5
8D992	“Software” specially designed or modified for the “development”, “production” or “use” of equipment controlled by 8A992	Cat 8–5
8E001	“Technology” according to the General Technology Note for the “development” or “production” of equipment or materials controlled by 8A (except 8A018, 8A992), 8B or 8C	Cat 8–6
8E002	Other “technology” as follows (see List of Items Controlled).	Cat 8–6
8E992	“Technology” for the “development”, “production” or “use” of equipment controlled by 8A992	Cat 8–6
9A001	Aero gas turbine engines having any of the following (see List of Items Controlled).	Cat 9–1
9A002	Marine gas turbine engines with an ISO standard continuous power rating of 24,245 kW or more and a specific fuel consumption not exceeding 0.219 kg/kWh in the power range from 35 to 100%, and specially designed assemblies and components therefor	Cat 9–1
9A003	Specially designed assemblies and components, incorporating any of the “technologies” controlled by 9E003.a or 9E003.h, for gas turbine engine propulsion systems having any of the, follows (see List of Items Controlled)	Cat 9–1
9A004	Space launch vehicles and “spacecraft”	Cat 9–1
9A005	Liquid rocket propulsion systems containing any of the systems or components controlled by 9A006. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–2
9A006	Systems and components specially designed for liquid rocket propulsion systems. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–2
9A007	Solid rocket propulsion systems. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–2
9A008	Components specially designed for solid rocket propulsion systems. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 21.)	Cat 9–2
9A009	Hybrid rocket propulsion systems. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–2
9A010	Specially designed components, systems and structures for launch vehicles, launch vehicle propulsion systems or “spacecraft”. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–2
9A011	Ramjet, scramjet or combined cycle engines and specially designed components therefor. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–2
9A012	Non–military “unmanned aerial vehicles”, (“UAVs”), associated systems, equipment and components, as follows (see List of Items Controlled).	Cat 9–2
9A018	Equipment on the Wassenaar Arrangement Munitions List	Cat 9–3
9A101	Turbojet and turbofan engines (including turbocompound engines) other than those controlled by 9A001, as follows (see List of Items Controlled).	Cat 9–3

ECCN	Description	Page
9A103	Liquid propellant tanks specially designed for the propellants controlled in ECCNs 1C011, 1C111 or other liquid propellants used in “missiles”. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–4
9A104	Sounding rockets, capable of a range of at least 300 km. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–4
9A105	Liquid propellant rocket engines. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–4
9A106	Systems or components, other than those controlled by 9A006, usable in “missiles”, as follows (see List of Items Controlled), and specially designed for liquid rocket propulsion systems	Cat 9–4
9A107	Solid propellant rocket engines, usable in rockets with a range capability of 300 Km or greater, other than those controlled by 9A007, having total impulse capacity equal to or greater than 8.41×10^5 Ns, but less than 1.1×10^6 Ns. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–4
9A108	Solid rocket propulsion components, other than those controlled by 9A008, usable in rockets with a range capability of 300 Km or greater. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–4
9A109	Hybrid rocket motors, usable in rockets with a range capability of 300 Km or greater, other than those controlled by 9A009, and specially designed components therefor. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–4
9A110	Composite structures, laminates and manufactures thereof, other than those controlled by entry 9A010, specially designed for use in “missiles” or the subsystems controlled by entries 9A005, 9A007, 9A105.a, 9A106 to 9A108, 9A116, or 9A119	Cat 9–4
9A111	Pulse jet engines, usable in rockets, missiles or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300km, and specially designed components therefor. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–5
9A115	Apparatus, devices and vehicles, designed or modified for the transport, handling, control, activation and launching of rockets, missiles, and unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–5
9A116	Reentry vehicles, usable in “missiles”, and equipment designed or modified therefor. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–5
9A117	Staging mechanisms, separation mechanisms, and interstages therefor, usable in “missiles”. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–5
9A118	Devices to regulate combustion usable in engines which are usable in rockets with a range capability greater than 300 Km or greater, controlled by 9A011 or 9A111. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–5
9A119	Individual rocket stages, usable in rockets with a range capability greater than 300 Km or greater, other than those controlled by 9A005, 9A007, 9A009, 9A105, 9A107 and 9A109. (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–5
9A120	Complete unmanned aerial vehicles, not specified in 9A012, having all of the following	Cat 9–5
9A980	Nonmilitary mobile crime science laboratories; and parts and accessories, n.e.s.	Cat 9–5
9A990	Diesel engines, n.e.s., and tractors and specially designed parts therefor, n.e.s.	Cat 9–5
9A991	“Aircraft”, n.e.s., and gas turbine engines not controlled by 9A001 or 9A101 and parts and components, n.e.s.	Cat 9–6
9A992	Complete canopies, harnesses, and platforms and electronic release mechanisms therefor, except such types as are in normal sporting use	Cat 9–6
9B001	Equipment, tooling and fixtures, specially designed for manufacturing gas turbine blades, vanes or tip shroud castings, as follows (see List of Items Controlled)	Cat 9–6
9B002	On-line (real time) control systems, instrumentation (including sensors) or automated data acquisition and processing equipment, specially designed for the “development” of gas turbine engines, assemblies or components incorporating “technologies” controlled by 9E003.a.	Cat 9–7
9B003	Equipment specially designed for the “production” or test of gas turbine brush seals designed to operate at tip speeds exceeding 335 m/s, and temperatures in excess of 773 K (500°C), and specially designed components or accessories therefor.	Cat 9–7
9B004	Tools, dies or fixtures for the solid state joining of “superalloy”, titanium or intermetallic airfoil-to-disk combinations described in 9E003.a.3 or 9E003.a.6 for gas turbines	Cat 9–7

ECCN	Description	Page
9B005	On-line (real time) control systems, instrumentation (including sensors) or automated data acquisition and processing equipment, specially designed for use with any of the following (see List of Items Controlled)	Cat 9–7
9B006	Acoustic vibration test equipment capable of producing sound pressure levels of 160 Db or more (referenced to 20 uPa) with a rated output of 4 kW or more at a test cell temperature exceeding 1,273 K (1,000°C), and specially designed quartz heaters therefor	Cat 9–8
9B007	Equipment specially designed for inspecting the integrity of rocket motors using Non–Destructive Test (NDT) techniques other than planar X–ray or basic physical or chemical analysis	Cat 9–8
9B008	Transducers specially designed for the direct measurement of the wall skin friction of the test flow with a stagnation temperature exceeding 833 K (560°C)	Cat 9–8
9B009	Tooling specially designed for producing turbine engine powder metallurgy rotor components capable of operating at stress levels of 60% of Ultimate Tensile Strength (UTS) or more and metal temperatures of 873 K (600°C) or more	Cat 9–8
9B010	Equipment specially designed for the production of “UAVs” and associated systems, equipment and components controlled by 9A012.	Cat 9–8
9B105	Wind tunnels for speeds of Mach 0.9 or more, usable for rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300km and their subsystems.	Cat 9–8
9B106	Environmental chambers usable for rockets, missiles, or unmanned aerial vehicles capable of achieving a “range” equal to or greater than 300 km and their subsystems, as follows (see List of Items Controlled).	Cat 9–9
9B115	Specially designed “production equipment” for the systems, sub-systems and components controlled by 9A004 to 9A009, 9A011, 9A101, 9A104 to 9A109, 9A111, 9A116 to 9A119.	Cat 9–9
9B116	Specially designed “production facilities” for the systems, sub-systems, and components controlled by 9A004 to 9A009, 9A011, 9A012, 9A101, 9A104 to 9A109, 9A111, 9A116 to 9A119.	Cat 9–9
9B117	Test benches and test stands for solid or liquid propellant rockets, motors or rocket engines	Cat 9–10
9B990	Vibration test equipment and specially designed parts and components, n.e.s.	Cat 9–10
9B991	Specially designed equipment, tooling or fixtures, not controlled by 9B001, as described in the List of Items Controlled, for manufacturing or measuring gas turbine blades, vanes or tip shroud castings	Cat 9–10
9C110	Resin impregnated fiber prepregs and metal coated fiber preforms therefor, for composite structures, laminates and manufactures specified in 9A110, made either with organic matrix or metal matrix utilizing fibrous or filamentary reinforcements having a specific tensile strength greater than 7.62×10^4 m and a specific modulus greater than 3.18×10^6 m	Cat 9–10
9D001	“Software” specially designed or modified for the “development” of equipment or “technology” controlled by 9A (except 9A018, 9A990 or 9A991), 9B (except 9B990 or 9B991) or 9E003.	Cat 9–10
9D002	“Software” specially designed or modified for the “production” of equipment controlled by 9A (except 9A018, 9A990, or 9A991) or 9B (except 9B990 or 9B991)	Cat 9–11
9D003	“Software” specially designed or modified for the “use” of “Full Authority Digital Electronic Engine Control System” (“FADEC”) for propulsion systems controlled by 9A (except 9A018, 9A990 or 9A991) or equipment controlled by 9B (except 9B990 or 9B991), as follows (see List of Items Controlled)	Cat 9–11
9D004	Other “software” as follows (see List of Items Controlled).	Cat 9–11
9D018	“Software” for the “use” of equipment controlled by 9A018	Cat 9–12
9D101	“Software” specially designed or modified for the “use” of commodities controlled by 9B105, 9B106, 9B116, or 9B117	Cat 9–12
9D103	“Software” specially designed for modelling, simulation or design integration of “missiles”, or the subsystems controlled by 9A005, 9A007, 9A105.a, 9A106, 9A108, 9A116 or 9A119. (This entry is subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–12
9D104	“Software” specially designed and modified for the “use” of equipment controlled by 9A001, 9A005, 9A006.d, 9A006.g, 9A007.a, 9A008.d, 9A009.a, 9A010.d, 9A011, 9A012 (for MT controlled items only), 9A101, 9A105, 9A106.c and .d, 9A107, 9A108.c, 9A109, 9A111, 9A115.a, 9A116.d, 9A117, or 9A118	Cat 9–12
9D105	“Software” that coordinates the function of more than one subsystem, specially designed or modified for “use” in “missiles.” (These items are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls. See 22 CFR part 121.)	Cat 9–13
9D990	“Software”, n.e.s., for the “development” or “production” of equipment controlled by 9A990 or 9B990	Cat 9–13
9D991	“Software”, for the “development” or “production” of equipment controlled by 9A991 or 9B991	Cat 9–13
9E001	“Technology” according to the General Technology Note for the “development” of equipment or “software” controlled by 9A001.b, 9A004 to 9A012, 9B (except 9B990 or 9B991), or 9D (except 9D990 or 9D991)	Cat 9–13

ECCN	Description	Page
9E002	"Technology" according to the General Technology Note for the "production" of equipment controlled by 9A001.b, 9A004 to 9A011 or 9B (except 9B990 or 9B991)	Cat 9–13
9E003	Other "technology" as follows.	Cat 9–14
9E018	"Technology" for the "development", "production", or "use" of equipment controlled by 9A018	Cat 9–16
9E101	"Technology" according to the General Technology Note for the "development" or "production" or "use" of commodities or software controlled by 9A012, 9A101, 9A104 to 9A111, 9A115 to 9A119, 9C110, 9D101, 9D103, 9D104 or 9D105	Cat 9–16
9E102	"Technology" according to the General Technology Note for the "use" of space launch vehicles specified in 9A004, or commodities or software controlled by 9A005 to 9A012, 9A101, 9A104 to 9A111, 9A115 to 9A119, 9B105, 9B106, 9B115, 9B116, 9B117, 9D101, 9D103, 9D104 or 9D105	Cat 9–16
9E990	"Technology", n.e.s., for the "development" or "production" or "use" of equipment controlled by 9A990 or 9B990	Cat 9–16
9E991	"Technology", for the "development", "production" or "use" of equipment controlled by 9A991 or 9B991	Cat 9–16
9E993	Other "technology" not described in 9E003	Cat 9–17