

**ALPHABETICAL INDEX
TO THE COMMERCE CONTROL LIST**

This index is not an exhaustive list of controlled items.

Supplement No. 4 to Part 774 – Commerce Control List Order of Review
identifies the steps to follow when reviewing the Commerce Control List.

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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, 9A619
Combustion regulation devices, missile engines	9A118
Common channel signaling equipment/systems	5A991.c.8
Common channel signaling, technology for the development of equipment employing	5D001.c.5
Communications cable systems to detect surreptitious intrusion	5A003.a
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 or 5E980
Communications Systems (underwater)	5A001.b.1
Compasses	8A609.y.5, 8A620.y.5, 8A992.j, 9A610.y.13
Compasses (gyro-astro) & other position or orientation deriving devices	7A004
Compasses (gyro-astro) & devices, other than those of 7A004	7A104
Complex programmable logic devices (CPLD)	3A001.a.7, 3A991.d
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.c.1.a
Composites production equipment	1B001

Description	ECCN Citation
Composite structures for propulsion systems or space vehicles.....	9A110, 9A619.x
Composite structures for unmanned aerial vehicles	9A610.t
Composites (structural) production equipment.....	1B101
Compound rotary tables for machine tools.....	2B008.d
Compound semiconductor integrated circuits	3A001.a.11
Compound semiconductor photocathodes	6A002.a.2.c.3
Compressors.....	9A619.x
Compressors, bellows-sealed scroll-type.....	2B233
Compressors, turboexpander.....	1B232
Compressors, turbo/centrifugal/axial flow.....	9A619.x
Computer, electronic assemblies & equipment & components ...	4A001, 4A003, 4A004 or 4A994
Computer, electronic components	4A101
Computer, electronic components	4A102
Computers, parts, components, accessories... for military applications, not on USML	3A611
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, parts, components ... for military application not on USML.....	4A611/3A611
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
Concealment and deception equipment (military), i.e. special paints, decoys, smoke or obscuration equipment and simulators	0A617
Concealed object detection equipment	2A984, 2D984 or 2E984
Condensers for use in nuclear reactors	2A290.a
Condensers or heat exchangers	2B350.d
Conductive polymers	1C001.c

Description	ECCN Citation
Conductors, superconductive composite	1C005
Congo-Crimean hemorrhagic fever virus (a.k.a. Crimean-Congo hemorrhagic fever virus)	1C351.a.10
Connector backshells, electric	3A611.y.9
Conotoxins	1C351.d.6
Construction equipment “specially designed” for military use	0A617.y.1
Contactors	3A611.y.27
Contagious bovine pleuropneumonia (<i>Mycoplasma mycoides</i> subspecies <i>mycoides</i> SC (small colony)).....	1C351.c.16
Containers, ISO intermodal containers for packing defense articles or “600 series” items	0A617.y.3
Containers, chemical.....	2B350.c
Containment devices (not enumerated under ECCN 1B608 or in USML Category IV or V) for the testing of high explosives or explosive devices.....	1B234
Containment facilities	2B352.a.1
Continuity of operation software	3D005
Continuous mixers	1B118
Control units for metallurgical melting & casting furnaces.....	2B227
Control systems, on-line development of gas turbine engines	9B002, 9B619.a
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
Conventional military steel helmets.....	1A613.y.1
Converter integrated circuits.....	3A001.a.5
Converters, frequency	3A225
Converters, frequency extender	3A001.b.7
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
Correlation-velocity sonar log equipment	6A001.b
Counter Improvised Explosive Device equipment	5A001.h
Coxiella burnetii.....	1C351.c.13
CR (Dibenz-(b,f)-1,4-oxazepine) (CAS 257-07-8)	1C607.a.4
Crime science laboratories, parts and accessories, nonmilitary mobile.....	9A980
Crimean-Congo hemorrhagic fever virus (a.k.a. Congo-Crimean hemorrhagic fever virus)	1C351.a.10

Description	ECCN Citation
Cross (tangential) flow filtration equipment.....	2B352.d
Crossed-field amplifier tubes.....	3A001.b.1.b
Crucibles, liquid actinide resistant.....	2A225
Crucibles, tantalum.....	2A225.b or c
Cryocoolers for optical sensors, space qualified.....	6A002.d.1
Cryocoolers for optical sensors, non-space qualified.....	6A002.d.2
Cryogenic and superconductive equipment, parts, components, accessories.....	9A620
Cryogenic and superconductive test equipment.....	9B620
Cryogenic and superconductive software.....	9D620
Cryogenic and superconductive technology.....	9E620
Cryptanalytic equipment and components, mass market.....	5A992
Cryptanalytic systems, equipment and components.....	5A004.a
Cryptographic activation token.....	5A002.b, 5D002.b, 5E002.b
Cryptographic enabling systems, equipment, integrated circuits, etc.....	5A002.b
Cryptographic enabling/activation software.....	5D002.b
Cryptographic enabling/activation technology.....	5E002.b
Cryptographic equipment and components, mass market.....	5A992
Cryptologic equipment, software for the development, production or use of, mass market..	5D992
Cryptologic equipment and components, mass market.....	5A992
Cryptographic systems, equipment and components for data confidentiality > 56 bits.....	5A002.a
Crystal pullers and furnaces.....	3B991.b.1.c
CS (o-Chlorobenzylidenemalononitrile or o-Chlorobenzalmalononitrile) (CAS 2698-41-1).....	1C607.a.2
CTPB (Carboxy-terminated polybutadiene).....	1C111.b.1
Cultivation chamber holding devices (including, <i>inter alia</i> , single-use cultivation chambers with rigid walls).....	2B352.b.2.b
Custom integrated circuits.....	3A001.a.2 or 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
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, 1E355.b.2
Cyber hacking systems, equipment and components.....	5A004
Cylinder wall lubrication technology, diesel engines.....	9E003.e.3
DACs (Digital-to-analog converters).....	3A001.a.5
DBRN (Data Based Referenced Navigation) system technology.....	7E004.a.7

Description	ECCN Citation
DADE (1,1-diamino-2,2-dinitroethylene, FOX-7) (CAS 145250-81-3) ..List of Explosives Annex to Cat. 1	
Damping, flotation or lubricating fluids	1C006.c
Data acquisition systems for gas turbine engine development	9B002, 9B619.a
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 or 1A995
Decontamination equipment (military) for toxicological agents	1A607.g
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
Demolition blocks	0A604.a
Depleted Uranium	1A290
Depth sounders.....	6A001.a.1
Design integration of guidance sets, software	7D103
Detection and protection equipment and components	1A004, 1A995, 2B351 or 2B352
Detection equipment (military) for toxicological agents	1A607.h
Detection equipment, seismic	6A999.a
Detection equipment, radiation.....	1A004, 1A995 or 1A999.a
Detection equipment, radiographic	1A999.b
Detection systems for explosives and detonators	1A004.d, 2A983, 2D983 or 2E983
Detection or location systems or transmitting and receiving arrays (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 or 1C992.c
Detonator detection.....	2A983, 2D983 or 2E983
Detonators and multipoint initiation systems	3A229
Detonator firing sets, for multiple detonators of 3A232.....	1A007 or 3A229
Detonators, electric or non-electric.....	1C608.d or 1C992.e
Detonators, exploding bridge wire (EBW)	1A007
Detonators, exploding bridge (EB)	1A007
Detonators, exploding foil initiators (EB)	1A007
Detonators for military explosives.....	0A604
Detonators, slapper (electric).....	1A007
Deuterium, not for use in a nuclear reactor.....	1C298.b

Description	ECCN Citation
Deuterium fluoride-carbon dioxide (DF-CO ₂) lasers.....	6A005.d.5
Deuterium fluoride (DF) lasers.....	6A005.d.5
Di-isopropylamine.....	1C350.d.8
Diacetoxyscirpenol.....	1C351.d.7
Dials, indicator.....	3A611.y.26
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
Diaphragm valves.....	2B350.g
Dibromodimethyl ether (CAS 4497-29-4).....	1C607.a.7
Dibromotetrafluoroethane based damping or flotation fluids.....	1C006.c.1
Dichlorodimethyl ether (ClCi) (CAS 542-88-1).....	1C607.a.8
Die bonder, stored program controlled.....	3B991.b.3.a
Diesel engines for submarines.....	8A620.d
Diesel engines, nonmagnetic.....	8A609.b
Diesel engines (air-cooled) and engine blocks for armored vehicles.....	0A606.c
Dies, bellows-forming.....	2B228.c
Diesel engines, n.e.s.....	9A990
Diesel cycle engine, air independent.....	8A002.j
Diethyl chlorophosphite.....	1C350.d.5
Diethyl ethylphosphonate.....	1C350.b.3
Diethyl methylphosphonate.....	1C350.b.4
Diethyl methylphosphonite.....	1C350.b.5
Diethyl phosphite.....	1C350.c.1
Diethyl-N, N-dimethylphosphoramidate.....	1C350.b.6
Diethylamine.....	1C350.d.3
Diethylaminoethanol.....	1C350.d.4
Diethylene glycol dinitrate (DEGDN).....	1C111.c.5
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, 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

Description	ECCN Citation
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, 9D619
Digital exchanges, telecommunication	5A991.c
Digital instrumentation data recorders.....	3A002.a.6
Digital signal processors	4A003
Digital time delay generators	3A999.e1
Digital-to-analog converter integrated circuits (DACs)	3A001.a.5
Digitally controlled radio receivers	5A001.b.5
Digitizers, waveform.....	3A002.h
Diisopropylaminoethanethiol hydrochloride	1C350.b.7
Dimensional inspection or measuring systems or equipment not controlled by 2B006 or 2B206.....	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.12
Dimethyl methylphosphonate	1C350.b.13
Dimethyl phosphite.....	1C350.c.2
Dimethylamine.....	1C350.d.9
Dimethylamine hydrochloride	1C350.d.10
Dinitrogen tetroxide ()	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
Direct Digital Synthesizer (DDS) integrated circuits	3A001.a.13
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	

Description	ECCN Citation
controlled under 7A003	7A103
Directional solidification casting control software	9D004.c
Directional solidification casting equipment	9B001.a, 9B619.a
Discharge type arms.....	0A503
Discrete microwave transistors	3A611.d
Discrete microwave transistor technology.....	3E611.b.4
Display, 3D (software for)	7D004.g
Disruptors.....	1A006.b
Disruptors.....	1A006.b
Dissemination equipment (military) for riot control agents in 1C607.a.....	1A607.e
Distillation columns, hydrogen-cryogenic.....	1B228
Distillation towers, packings	1A226
Dive computers	8A992.j
Diver deterrent acoustic systems	8A002.r
DNAN (2,4-dinitroanisole) (CAS 119-27-7).....	Annex to Cat 1 “List of Explosives” 44
Dobrava-Belgrade virus	1C351.a.11
Doppler laser interferometers (DLIs).....	6A225
Double-door pass-through decontamination autoclaves.....	2B352.a.2.a
Double seal valves	2B350.g
Drilling equipment.....	2B999.h
Drilling machines, deep-hole.....	2B001.f
Drone (military) production facilities	9B610.c
Dummy rounds and blank rounds (unless linked or belted), not incorporating a lethal or non-lethal projectile(s)	EAR99
Dye lasers.....	6A005.c
Dye lasers.....	6A205
Dynamic adaptive routing equipment.....	5A991.c.9
Dynamic wavefront (phase) measuring equipment	6A004.f
Dynamic adaptive routing software	5D991.a
E-beam welders.....	2B999.e
Earth moving equipment, large.....	2B999.h.2
Eastern equine encephalitis virus.....	1C351.a.12
EB-PVD (Electron beam physical vapor deposition) equipment	2B005.c
Ebolavirus (includes all members of Ebolavirus genus).....	1C351.a.13
Eddy current test equipment for nuclear reactors	2A291.d
EDMs, non-wire feed types	2B001.d
EDMs, wire feed type	2B991d.1
Ejection seat mounted survival aids for military aircraft.....	9A610.y.6
Electric cattle prods.....	0A503
Electric detonators, explosive	3A232a
Electric fans	3A611.y.2
Electric propulsion engines.....	8A002o.2.b

Description	ECCN Citation
Electrical contacts	3A611.y.19
Electrical discharge machines, non wire feed (CNC).....	2B001.d
Electrical discharge machines (EDM) of the wire feed type	2B991.d.2
Electrical guide pins.....	3A611.y.20
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
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 separators.....	1B226
Electromagnetic pulse (EMP) protection, detectors	6A102
Electromagnetic pulse (EMP) protection technology, avionics.....	7E102
Electromagnetic pulse (EMP) recovery software	3D005
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 melting furnaces.....	2B227.b
Electron beam physical vapor deposition (EB-PVD) equipment	2B005.c
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 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.3	2B006.b.4
Electronic cameras	6A003.a.5
Electric chairs.....	0A981
Electrical connectors.....	3A611.y.1
Electronic components.....	3A001

Description	ECCN Citation
Electronic components.....	3A201
Electronic components.....	3A101
Electronic components (military)	3A611
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 or 4A994
Electronic computers & related equipment.....	4A101
Electronic computers & related equipment.....	4A102
Electronic cooling fluids	1C006.d
Electronic framing cameras	6A203.b.2
Electron sensing devices	6A002.a.2.a.2.b
Electronic streak cameras & streak tubes	6A003.a.3
Electronic streak cameras & streak tubes	6A203.b.1
Electrostatic Discharge (ESD) recovery software	3D005
Electronically steerable antennae, phased array	5A001.d
Electroplating equipment	2B999.i
EMP/EMI protection technology, avionic systems	7E102
EMP/ESD recovery software	3D005
Encoders, rotary input shaft type, and rings, discs or scales therefor	3A001.f
Encryption equipment, assemblies & components	5A002
Encryption hardware components.....	Cat 5 pt 2 Note 3 (b)
Encryption software	5D002
End effectors, robot.....	2B207
End effectors, robot.....	2B007
Energetic ionic materials.....	Annex to Cat 1 List of Explosives 48
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.b.4
Enterohaemorrhagic E. coli (EHEC)	1C351.c.17
Environmental chambers	1B018.b, 9B106, or 9B610.b
Environmental chambers, capable of simulating flight conditions.....	9B106, 9B610.b
Environmental test facilities for 7A611 (except 7A611.y) or guidance equipment	7B611
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

Description	ECCN Citation
Equine morbillivirus (Hendra virus).....	1C351.a.18
Equipment (i.e., test, inspection, and production equipment) and related commodities “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities enumerated or otherwise described in USML Category XVIII.....	6B619.a
Equipment (military) “specially designed” for the destruction of chemical warfare agents	1B607.a
Equipment and tooling “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities controlled by 1A607.e, .f, .g, .h, or .j or by USML Category XIV(f).....	1B607.c
Erbium oxide (erbia) (Er ₂ O ₃) made/coated crucibles	2A225.a.4
Etching stored program controlled equipment.....	3B991.b.1.h
Ethers, as lubricating fluid	1C006.b.1
Ethyl centralites	1C018.a
Ethyl chlorofluorophosphate.....	1C350.d.11
Ethyl dichlorophosphate	1C350.d.12
Ethyl difluorophosphate.....	1C350.d.13
Ethyl iodoacetate (CAS 623-48-3).....	1C607.a.14
Ethyl phenyl urethane	1C018.e
Ethyl phosphinyl dichloride.....	1C350.b.15
Ethyl phosphinyl difluoride	1C350.b.16
Ethyl phosphonous dichloride.....	1C350.b.15
Ethyl phosphonous difluoride	1C350.b.16
Ethyl phosphonyl dichloride	1C350.b.17
Ethyl-NN-diphenylurea (ethyl unsymmetrical diphenylurea)	1C018.d
Ethyldibromoarsine (CAS 683-43-2)	1C607.a.9
Ethyldiethanolamine (139-87-7).....	1C350.c.3
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 or 2E983
Explosive detonators, electric	1A007.b or 3A232

Description	ECCN Citation
Explosive devices , charges, components - commercial.....	1C608, 1A008 or 1C992.1
Explosives (military) production equipment	1B018.a
Explosives (military) in charges for civil applications	1A008 or 1C608
FADEC (Full authority digital electronic engine control) software	9D003, 9D619
FADEC (Full authority digital electronic engine control) technology	9E003.h, 9E619
Fan blade (hollow) technology	9E003, 9E619
Fans, electric	3A611.y.2
Fast Fourier Transform (FFT) processors.....	3A001.a.12
Fast switching function modules or assemblies.....	3A228.c
Fast fourier transform processors, acoustic signal processing.....	6A001.a.2.c
Fault tolerance FADEC software.....	9D003, 9E619
Fermenters (biological processing), and components designed for such fermenters	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 laser components	6A005.e.3
Fiber optic cable.....	5A001.c
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
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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
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Fibrous and filamentary materials development, production or use technology	1E994
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Field programmable logic arrays (FPLA).....	3A001.a.7, 3A991.d
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Description	ECCN Citation
Filament winding machines	1B001.a
Filament winding machines	1B101.a
Filament winding machines	1B201
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Filters, tunable band-pass	3A001.b.5
Filters for clean rooms	3B991.b.4
Filters (fuel or oil) for gas turbine engines	9A619.y.4
Filters (hydraulic, fuel, oil, air) for ground vehicles.....	0A606.y.8
Filters, optical	6A994.a
Filters for hydraulic/oil/fuel systems in military aircraft.....	9A610.y.8
Filters for pneumatic/hydraulic/oil/fuel systems in submersible vessels.....	8A620.y.2
Filters for pneumatic/hydraulic/oil/fuel systems in surface vessels of war	8A609.y.2
Finger barriers.....	3A611.y.31
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Fingerprint analyzers, cameras and equipment.....	3A981
Fingerprint equipment, computers for	4A980
Fingerprinting powders, dyes, inks.....	1A985
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Finishing machines, gear	2B003
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Firearms manufactured from 1890 to 1898 and reproductions thereof	0A501.y.7
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Fire detectors for military aircraft.....	9A610.y.27
Firearm, magazines (greater than 16 rounds but not to exceed 50 rounds).....	0A505.d
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Firing sets, for multiple detonators of 3A232	1A007 or 3A229.a
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Description	ECCN Citation
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Flow-forming machines	2B009
Flow-forming machines	2B109
Flow-forming machines	2B209
Flow-forming machines	2B9991
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Fluoride compounds (bulk).....	6C994.a.1
Fluoride glass (bulk)	6C994.a.2
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Fluorinated compounds, components	1A001
Fluorinated compounds, unprocessed.....	1C009
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Fluorinated polyimide.....	1C009.b
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Fluorine production (electrolytic cells).....	1B225
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 or 2B992.b
Fly-by-light flight control system software	7D003.e, 7D004.c
Fly-by-light or fly-by-wire technology	7E004.b
Fly-by-wire flight control system software.....	7D003.e, 7D004.c
Fly-by-wire systems for military UAVs or drones	9A610.w
Fly-by-wire systems for missiles	7A116
Fly-by-wire control system technology	7E004.b
Foam, syntactic for underwater use (in any stage of manufacture)	8C001 or 8A002.a.4
Foam mirror structures, lightweight	6A004.a.3
Focal plane arrays, direct view	6A002.c.2 or c.3
Focal plane arrays, linear & 2D	6A002.a.3
Focal plane arrays, non-space qualified.....	6A002.a.3.g
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Focal-plane array performance determining equipment	3B992.b.4.c

Description	ECCN Citation
Fogging or spraying systems, specially designed for fitting to aircraft, “lighter than air vehicles,” or “UAVs”	2B352.h.1
Foot-and-mouth disease virus	1C351.a.14
Fording (water) kits for ground vehicles	0A606.e
FPGA's (Field programmable gate arrays)	3A001.a.7
FPLA's (Field programmable logic arrays)	3A001.a.8
Fracking fluid.....	0A998.b.2
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.14
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, gas, or vapor sterilizable)	2B352.e
Freon and chilled water cooling systems	1B999.d
Frequency agile (frequency hopping) radio equipment.....	5A001.b.3
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Frequency agile tubes	3A001.b.1
Frequency hopping development technology	5E001.b.4
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Frequency changers	3A999.a
Frequency changers (converters or inverters)	3A225
Frequency changers (a.k.a. converters or inverters) and generators, “software” “specially designed” for the “use” of	3D201
Frequency changers (a.k.a. converters or inverters) and generators, “software” “specially designed” to enhance or release the performance characteristics of equipment to meet or exceed the performance characteristics in ECCN 3A225	3D202
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Frequency standards, atomic.....	3A002.g
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Frequency synthesizer, electronic assemblies.....	3A001.b.11
Fuel oils.....	1C980
Fuel cell air independent power systems	8A002.j
Fuel lines and hoses for gas turbine engines.....	9A619.y.3
Fuel filters for gas turbine engines.....	9A619.y.4
Full Authority Digital Electronic Engine Control software.....	9D003, 9D619
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Fungi, human and zoonotic pathogens and “toxins”	1C351.e
Fungi, plant pathogens	1C354.b
Furnaces	2B226

Description	ECCN Citation
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.c.3
GaInAs photocathodes	6A002.a.2.c.3
Galleys (military aircraft)	9A610.y.9
Galleys (submersible vessels)	8A620.y.3
Galleys (surface vessels of war)	8A609.y.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 other preforms of those materials.....	3C005.a
Gallium selenide	6C004.b.5
Gallows	0A981
Gas centrifuge rotor assembly equipment.....	2B228.a
Gas krytron tubes	3A228.a
Gas or full face masks.....	1A004 or 1A995
Gas centrifuge rotor balancing equipment.....	2B229
Gas, manufactured, synthetic or natural liquid produced or derived from Naval Petroleum Reserves	1C984
Gas discharge & ion lasers.....	6A005.a
Gas and oil exploration equipment, software, and data	0A998
Gas lasers	6A005.a
Gas monitoring systems, toxic.....	2B351
Gas sterilizable freeze drying equipment.....	2B352.e
Gas turbine aeroengines, civil non-certified/supersonic.....	9A001
Gas turbine blade, manufacturing or measuring equipment	9B001, 9B619
Gas turbine blade technology.....	9E003.a, 9E619
Gas turbine blades, vanes or tip shroud casting equipment, tooling or fixtures	9B991, 9B619
Gas turbine brush seal production/test equipment	9B003, 9B619
Gas turbine components, solid state joining equipment	9B004, 9B619
Gas turbine engine development systems/instrumentation.....	9B002, 9B619
Gas turbine engine development control systems or instrumentation	9B002, 9B619
Gas turbine engine propulsion systems assemblies/components.....	9A003, 9A619
Gas turbine engine technology.....	9E003, 9E619
Gas turbine engine development and use software.....	9D004, 9D619
Gas turbine engine monitoring system software.....	9D619.b.11
Gas turbine engines, parts and components, not controlled by 9A001 or 9A101	9A991, 9A619
Gas turbine engines & assemblies/components, marine.....	9A002
Gas turbine test/flow modeling software	9D004.a, 9D619
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Description	ECCN Citation
Gaskets, aircraft/aerospace use	1A001.a, 9A610.x
Gaskets, ground vehicles	0A606.y.9
Gaskets, vacuum	2B999.k
Gate silicon intensifier target (SIT) videcon tubes	6A203.b.3.b
Gateways & bridges.....	5A991.b.4.b
Gauges, hydraulic, pneumatic, fuel and lubrication	3A611.y.35
Gauges and indicators (analog cockpit).....	9A610.y.2
Gauges and indicators (submersible vessels).....	8A620.y.10
Gauges and indicators (surface vessels of war).....	8A609.y.10
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
Gel propellant control systems.....	9A106.d
Generator systems, neutron.....	3A231
Generators and other equipment for nuclear plants	2A290
Generators, digital time delay	3A999.e1
Generators, for ground vehicles.....	0A606.y.2
Generators, field – “specially designed for military use.....	0A617.y.4
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
Glass matrix reinforced composite materials.....	1C007.c.1.a
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 or 7A994
Glove boxes	0B999
Gloves, protective	1A004 or 1A995
Glow discharge mass spectrometers (GDMS).....	3A233.b
GNSS (Global Navigation Satellite Systems) ranging signals decryption software	7D005
Goatpox virus.....	1C351.a.15
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

Description	ECCN Citation
Gradiometers & components, magnetic.....	6A006
Graphite, fine grain recrystallized bulk	1C107.a
Graphite, bulk	1C107.a
Graphite, pyrolytic or fibrous reinforced.....	1C107.b
Graphite, nuclear-grade, not intended for use in a nuclear reactor.....	1C298.a
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
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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
Ground fault circuit interrupters	3A611.y.18
Ground vehicles & related commodities.....	0A606
Grounding straps.....	3A611.y.25
Guanarito virus.....	1C351.a.16
Guanidine nitrate.....	1C011.c or 1C608.m
GUDN (Guanylurea dinitramide) FOX-12 (CAS 217464-38-5)	Annex to Cat 1 List of Explosives 46
Guidance sets usable in missiles.....	7A117
Guillotines.....	0A981
Gun barrel rifling and broaching machines and tools therefor.....	0B501 or 0B602
Gun barrel trepanning machines	0B501 or 0B602
Gun boring and turning machines.....	0B501 or 0B602
Gun honing machines	0B501 or 0B602
Gun, immobilization by electrical discharge	0A503
Gun jump screw lathes.....	0B501 or 0B602
Gun rifling machines.....	0B501 or 0B602
Gun, shotgun.....	0A502
Gun straightening presses	0B501 or 0B602
Gun, stun.....	0A503

Description	ECCN Citation
Guns and armament manufactured between 1890 and 1919	0A602.a
Gyro dynamic balance stations	7B003 or 7B101
Gyro tuning test stations	7B003 or 7B101
Gyro run-in/motor test stations	7B003 or 7B101
Gyro evacuation/fill stations	7B003 or 7B101
Gyro-astro compasses & devices	7A104
Gyros & gyro components	7A102
Gyros	7A002
Gyroscope production/manufacturing/test equipment	7B003
Hacking systems, equipment and components	5A004
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.17
Harbor entrance detection devices for submersible vessels	8A620.c
Hard surface coated substrates	3B991.b.2.b.1
Harnesses, complete	9A992, 9A610.h
Heading sensors, towed hydrophones	6A001.a.2.b.4
Heading sensors	6A001.a.2.d
Heat exchangers for use in nuclear reactors	2A290.a
Heat exchangers & condensers	2B350.d
Heat pipe cooled mirrors	6A005.e.1
Heat sinks	3A611.y.3
Helicopter system development technology	7E004.c
Helicopter power transfer system technology	9E003.d, 9E610
Helium, enriched	1C232
Helium refrigeration units	1B231.b.1
Helium	1C980
Helium-3	1C232
Helix Tubes	3A001.b.1.a.4
Helix traveling wave tubes (TWTs) technology	3E611.b.1
Helmet, military, shells, liners, comfort pads	1A613.c and .y.1
Helminthosporium oryzae (Cochliobolus miyabeanus)	1C354.b.2
Hemishell dimensional inspection equipment/systems	2B006.d
Hendra virus (Equine morbillivirus)	1C351.a.18
Herpesvirus (Suid herpesvirus 1; a.k.a. Pseudorabies virus, Aujeszky's disease)	1C351.a.51
Hetero-epitaxial grown multi-layer substrates	3C001
Hetero-structure semiconductor technology	3E003.b

Description	ECCN Citation
High energy storage capacitors.....	3A001.e.2
High explosive containment vessels, chambers, containers, and similar containment devices not enumerated under ECCN 1B608 or in USML Category IV or V.....	1B234
High power pulse shaping networks.....	3A999.c
High voltage capacitors.....	3A999.c
High voltage triggers.....	3A999.c
High-speed pulse generators.....	3A230
High-speed cameras.....	6A003
High-speed cameras and imaging devices and “components” therefore not controlled by ECCN 6A003.....	6A203
High-speed cameras and imaging devices and “components” therefore, “software” “specially designed” to enhance or release the performance characteristics of devices to meet or exceed the performance characteristics described in ECCN 6A203.....	6D201
High-vacuum service equipment.....	2B999.k
High-velocity gun systems.....	2B232
Hinges for ground vehicles.....	0A606.y.11
HIPS (Hot Isostatic Presses).....	2B204
HIPS (Hot Isostatic Presses).....	2B004
HIPS (Hot Isostatic Presses).....	2B104
Hog cholera virus (classical swine fever virus).....	1C351.a.9
Hollow cylinder centrifugal balancing machines.....	2B229.b
Holographic sights.....	0A504.b
Holographic sights that have focal plane array (visible wavelength only), technology for ...	0E504
Honing machines, gear.....	2B003
Honing machines, gear.....	2B003
Horses by sea.....	0A980
Hoses (brake) for ground vehicles.....	0A606.y.1
Hoses (cooling systems) for ground vehicles.....	0A606.v.7
Hoses (fuel) for gas turbine engines.....	9A619.y.3
Hoses (fuel and hydraulic) for military aircraft.....	9A610.y.10
Hoses (hydraulic system) for ground vehicles.....	0A606.y.10
Hoses for pneumatic/hydraulic/oil/fuel systems in surface vessels of war.....	8A609.y.2
Hoses (pneumatic) for ground vehicles.....	0A606.y.13
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.....	3B991.b.3.c
Hot cell manipulators.....	2B225
Hot cells.....	0B999
Hot isostatic presses (HIPS).....	2B104
HT-2 toxin.....	1C351.d.8

Description	ECCN Citation
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.....	4A994.k
Hybrid computers	4A102
Hybrid computer electronic systems/electronic assemblies	4A001.a
Hybrid rocket motors and components	9A109
Hydraulic fluids	1C980
Hydraulic fluids	1C996
Hydraulic forming equipment.....	2B999.b
Hydraulic fracturing items	0A998.b
Hydraulic fracturing ‘proppant,’ ‘fracking fluid,’ and chemical additives therefor	0A998.b.2
Hydraulic pressing, direct-acting technology	2E003.b.1.c
Hydraulic stretch-forming machines and dies technology.....	2E003.c
Hydrazine.....	1C111.d
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 vessel technology	8E002.c.3
Hydrogen.....	1C980
Hydrogen cyanide (74-90-8).....	1C355.b.1.c, 1E355.b.3
Hydrogen fluoride.....	1C350.d.14
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-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.15
Hydroxy-terminated polybutadiene (HTPB)	1C111.b.2
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
Identification plates and nameplates.....	3A611.y.33
Identification plates for gas turbine engines	9A619.y.7
Igniters	1C608.e or 1C992.f

Description	ECCN Citation
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 or c.3
Image transfer equipment	3B991.b.2
Imaging cameras	6A003.b
Imaging cameras with focal plane arrays of 6A002.a.3.....	6A003.b.4
Imaging cameras with image intensifiers of 6A002.a.2.a.....	6A003.b.3
Imaging cameras incorporating solid-state detectors specified by 6A002.a.1.....	6A003.b.5
Imaging devices	6A203.b.3
Imaging equipment, visible & infrared.....	6A002.c
Imaging satellites	9A515
Imaging sensors, multispectral and monospectral	6A002.b
Immobilization guns and projectiles.....	0A503
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 accessories)	1A006
Improvised Explosive Devices (IED) activation devices	5A001.h
IMU platform balance fixture	7B003 or 7B101
IMU platform tester	7B003 or 7B101
IMU stable element handling fixture	7B003 or 7B101
Incinerators designed to destroy the chemicals controlled by 1C350.....	2B350.j
Independent (air) power systems underwater	8A002.j
Indicator dials.....	3A611.y.26
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
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.....	7A003.c
Inertial measurement equipment.....	7A003
Inertial measurement unit tester (IMU module)	7A003, 7B003 or 7B101

Description	ECCN Citation
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 1918 influenza virus).....	1C351.a.41
Information security defeating, weakening or bypassing systems, equip. and components...	5A004
Information security equipment software, mass market	5D992
Information security equipment and components, mass market.....	5A992
Information security software	5D002
Information security systems/equipment/devices/components.....	5A002
Information security technology, mass market.....	5E992
Information security - test, inspection, and production equipment	5B002
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
Inspection equipment (linear-angular for hemishells)	2B006.d
Inspection equipment for composite materials	1B001.f
Inspection machines (dimensional), devices or systems, other than those in 2B006	2B206
International Space Station being developed, launched, and operated under the supervision of NASA and “parts,” “components,” “accessories” and “attachments” that are “specially designed” for the ISS.	9A004.w and .x
Instrumentation for gas turbine development	9B002, 9B619
Instrumentation for wind tunnels	9B005
Instrumentation systems, inertial navigation	7A003
Instrumentation cameras	6A003.a
Integrated circuit assembly equipment	3B991.b.3
Integrated circuit, Direct Digital Synthesizer (DDS).....	3A001.a.13
Integrated circuit test equipment, microwave	3B002.c
Integrated circuit test equipment, for (truth table) testing	3B002.b
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Intrusion software generation, command and control, or delivery systems, equipment, components	4A005
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Description	ECCN Citation
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Junin virus.....	1C351.a.20
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Description	ECCN Citation
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Lasers	6A995
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Lavatories for military aircraft.....	9A610.y.11
Lavatories for submersible vessels	8A620.y.4
Lavatories for surface vessels of war.....	8A609.y.4
LAX-112 (3,6-diamino-1,2,4,5-tetrazine-1,4-dioxide).....	Annex to Cat 1 List of Explosives 47.b
Leg irons	0A982
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Lithium amalgam electrolysis cells	1B233.b.3
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Lumpy skin disease virus.....	1C351.a.26
Lymphocytic choriomeningitis virus	1C351.a.27
Lyssavirus (including rabies virus and all other members of the Lyssavirus genus)	1C351.a.40
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Machine tools, laser	2B001.e.1.c

Description	ECCN Citation
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 2B006 & 2B007 equipment.....	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
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Machines for turning (CNC).....	2B001.a
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Machupo virus	1C351.a.28
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Magnesium (high purity)	1C228
Magnesium alloy, powder or particulate form	1C002.c.1.e
Magnesium alloys	1C002.b.5
Magnesium, metal and alloys of.....	1C011.a
Magnesium oxide (MgO) made or coated crucibles.....	2A225.a.6
Magnesium metal particulate.....	1C111.a.2.a.4
Magnetic alloy strips.....	1C003.c
Magnetic anomaly detection software	6D003.f.2
Magnetic bearings (suspension).....	2A001.c
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Magnetic compensation systems software.....	6D003.f.1
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Description	ECCN Citation
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Mandrels (precision) for filament winding machines.....	1B201
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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
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Maraging steel.....	1C116
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Marburgvirus (includes all members of Marburgvirus genus)	1C351.a.29
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Marine boiler.....	8A992.1
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 or full face.....	1A004 or 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
Mask substrate blanks	3B001.j
Masks	8A992.i
Masks, integrated circuits of 3A001	3B001.g
Masks, for optical sensors.....	6B002
Masks, mask substrates, mask-making equipment	3B991.b.2
Mass spectrometers & ion sources (UF6 enrichment plant).....	3A233
Mass spectrometers, n.e.s.....	3A999.b
Materials for reduced electromagnetic reflectivity	1C101
Materials “specially designed” for ground vehicles and related commodities controlled by 0A606 and not elsewhere specified on USML	0C606
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Media access units	5A991.b Note a.12
Medical countermeasures equipment (military) for use against chemical warfare agents	1A607.k
Medical facilities for submersible vessels	8A620.y.6
Medical facilities for surface vessels of war.....	8A609.y.6
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Mercury amalgam pumps	1B233.b.2
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Metal alloy particulate	1C111.a.2.a.4
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Metal alloys, beryllium	1C230
Metal alloys, boron	1C011.b
Metal alloys, hafnium	1C231
Metal alloys, lithium	1C233
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Metal alloys, tungsten	1C226
Metal alloys, tungsten or molybdenum.....	1C117
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Metal-organic compounds, aluminum/gallium/indium	3C003
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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

Description	ECCN Citation
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Metals or carbon coated fibers.....	1C010.e
Metals with high initial relative (magnetic) permeability.....	1C003.a
Methyl benzilate.....	1C350.d.16
Methyl centralites.....	1C018.a
Methyl chlorofluorophosphate.....	1C350.d.17
Methyl dichlorophosphate.....	1C350.d.18
Methyldiethanolamine (105-59-9).....	1C355.b.2.b
Methyl difluorophosphate.....	1C350.d.19
Microbiological disposal technology.....	1E351
Microchannel plates, image intensifier tubes.....	6A002.a.2
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Microcystins (Cyanginosins).....	1C351d.9
Microelectronic circuits (e.g., integrated circuits and micro-circuits) rated, certified, or otherwise specified or described as meeting or exceeding all the characteristics in 9A515.d and that are “specially designed” for defense articles, “600 series” items, or items controlled by 9A515.....	9A515.d
Microelectronic circuits (e.g., integrated circuits and micro-circuits) that are rated, certified, or otherwise specified or described as meeting or exceeding all the characteristics in 9A515.e and that are “specially designed” for defense articles controlled by USML Category XV or items controlled by 9A515.....	9A515.e
Microfluorination ion sources.....	3A233.f
Micromachined Angular Rate Sensors.....	7A994
Microorganisms, genetically modified.....	1C353
Microphones.....	3A611.y.6
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
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Microwave or millimeter wave components software.....	3D001
Microwave or millimeter wave components technology.....	3E001
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Description	ECCN Citation
Microwave power modules (MPM).....	3A001.b.9
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Microwave test receivers	3A002.f
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Middle East respiratory syndrome-related coronavirus (MERS-related coronavirus) ...	1C351.a.30
MIG welders	2B999.d
Military commodities.....	0A919
Military components	3A611
Military construction equipment.....	0A617.y
Military electronics (equipment, end items, systems)	3A611
Military explosive production equipment.....	1B018.a
Military ferries, bridges and pontoons.....	0A617
Military flame throwers with an effective range less than 20 meters	0A602.b
Military harbor entrance detection devices (magnetic, pressure, and acoustic)	8A620
Military helmet.....	0A018
Military training equipment	0A614
Military vehicles	0A606
Military vehicle fording kits	0A606
Military vehicle self-launching bridge components	0A606
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 structures, lightweight foam or composite type	6A004.a.3
Mirrors, actively cooled or heat pipe cooled	6A005.e.1
Mirrors, beam steering	6A004.a.4
Mirrors, cockpit for military aircraft.....	9A610.y.15
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

Description	ECCN Citation
Modeccin.....	1C351.d.10
Modeling/simulation of guidance sets, software	7D103
Modems.....	5A991.b.2
Modular time interval meter	3A999.e2
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
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
Monkeypox virus	1C351.a.31
Monolithic integrated circuits.....	3A001.a Note 2
Monolithic integrated circuit repair or trimming laser equipment.....	3B991.b.1.m
Monolithic Microwave Integrated Circuit (MMIC) amplifiers	3A001.b.12
Monospectral imaging sensors.....	6A002.b
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Motion simulators or rate tables	2B120
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Multichip modules	3A611.h, y.16
Multi-data-stream processing equipment, development or production technology for	4E993
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
Multichip modules	3A611.h, y.16
Multilevel security capability, equipment.....	5A002.d
Multimode optical fiber & cables, high tensile strength.....	5A001.c
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.32

Description	ECCN Citation
Mycoplasma capricolum subspecies capripneumoniae ("strain F38")	1C351.c.15
Mycoplasma mycoides subspecies mycoides SC (small colony) (a.k.a. contagious bovine pleuropneumonia)	1C351.c.16
N,N Diethylacetamidine	1C350.d.20
N,N-Diethylbutanamidine.....	1C350.d.21
N,N-Diethylformamidine.....	1C350.d.22
N,N-Diethylisobutanamidine	1C350.d.23
N,N-Diethylpropanamidine	1C350.d.24
N,N-diisopropyl-beta-aminoethane thiol	1C350.b.8
N,N-diisopropyl-(beta)-amino ethanol	1C350.b.9
N,N-diisopropyl-beta-aminoethyl chloride.....	1C350.b.10
N,N-diisopropyl-(beta)-aminoethyl chloride hydrochloride.....	1C350.b.11
N,N-Diisopropylbutanamidine.....	1C350.d.25
N,N-Diisopropylformamidine.....	1C350.d.26
N,N-Dimethylacetamidine	1C350.d.27
N,N-Dimethylbutanamidine.....	1C350.d.28
N,N-Dimethylformamidine.....	1C350.d.29
N,N-Dimethylisobutanamidine.....	1C350.d.30
N,N-Dimethylpropanamidine	1C350.d.31
N,N-Dipropylacetamidine.....	1C350.d.32
N,N-Dipropylbutanamidine	1C350.d.33
N,N-Dipropylformamidine	1C350.d.34
N,N-Dipropylisobutanamidine.....	1C350.d.35
N,N-Dipropylpropanamidine	1C350.d.36
NBC (Nuclear, biological and chemical) detection system software	1D003
NBC (Nuclear, biological and chemical) detection system libraries or parametric technical databases.....	1E002.g
NN-Diphenylurea (unsymmetrical diphenylurea)	1C018.b
Name plates and identification plates	3A611.y.33
Nanocrystalline alloy strips.....	1C003.c
Natural gas liquids and derivatives produced or derived from Naval Petroleum Reserves	1C983
Navigation, airborne comm. & other avionics equip. technology	7E004, 7E994
Navigation, airborne communication and other avionics software	7D004, 7D994
Navigation/avionics equipment, systems, parts, components ... for military	7A611, 3A611
Navigation direction finding equipment	7A004-7A008, 7A103-7A105, 7A994
Navigation Satellite Systems ranging signals decryption software	7D005
Navigation systems, equipment & components, inertial	7A103
Navigation systems, equipment & components, inertial	7A003
Navigation systems, equipment, parts ... for military not on USML.....	7A611/3A611
Navigation systems, underwater sonar	7A008
NDT (non-destructive test) inspection equipment (3D)	1B001.f

Description	ECCN Citation
NDT (non-destructive test) inspection equipment.....	9B007
Neodymium lasers	6A005.d.6
Neodymium lasers	6A205.f
Nets (submarine or torpedo)	8A620.e
Network analyzers	3A002.e
Network access controllers contained in computer equipment.....	4A994.i
Network access controllers contained in telecommunications	5A991.b.4.a
Network communications (IP) surveillance systems or equipment.....	5A001.j
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	1C351.a.33
Nickel alloy.....	1C002.b.1
Nickel alloy/powder or particulate form	1C002.c.1.a
Nickel aluminides	1C002.a.1
Nickel electroplating equipment.....	2B999.i
Nickel metal (made from powder).....	1C240
Nickel powder.....	1C240
Night vision devices.....	6A002.a.2, 6A003.b.3, 6A003.b.4, 6A202 or 6A203
Night vision technology.....	6E002 or 6E101
Niobium alloys.....	1C002.b.2
Niobium alloy/powder or particulate form	1C002.c.1.b
Nipah virus	1C351.a.34
3-Nitrazo-1,5 pentane diisocyanate.....	1C018.1
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Pyrolysis equipment, for rocket nozzles and reentry vehicle nose tips	

Description	ECCN Citation
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Reflex sights that have focal plane array (visible wavelength only), technology for.....	0E504
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Resin impregnated fiber prepregs, propulsion & space systems	9A110
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Description	ECCN Citation
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Rigid-walled, single-use cultivation chambers	2B352.b.2.b
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Rotor forming mandrels, precision	2B209.b
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Routers, telecommunications.....	5A991.c.10
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Description	ECCN Citation
Russian Spring-Summer encephalitis virus (Tick-borne encephalitis virus).....	1C351.a.53
S-parameter test/measurement equipment	3B002.a
S20 and S25 photocathodes	6A002
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Safety cabinets, capable of biological use	2B352.f.2
Saint Louis (St. Louis) encephalitis virus	1C351.a.50
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Satellite communication equipment technology	5E001.b.1
Satellite receivers	7A005
Satellite receivers, other than those of 7A005	7A105
Satellites, commercial communications.....	9A004, 9A515
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Saxitoxin	1C351.d.12
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Scatterometers.....	7B002.a
Scatterometers, to characterize mirrors for laser gyro equipment	7B102.a
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Scramjet engines/components.....	9A011
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SDH (Synchronous Digital Hierachy) technology	5E991.a.2
Sealers (semi-automatic or automatic hot cap) for ceramic microcircuit packages.....	3B991.b.3.c
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Search lights.....	0A617.y.5
Seats, seat assemblies, seat supports, and harnesses – for ground vehicles.....	0A606.y.14
Security equipment, information	5A002
Security equipment, information, software.....	5D002
Security imaging equipment	2A984, 2D984 or 2E984
Security scanning equipment	2A984, 2D984 or 2E984
Segmented mirrors, assembly in space	6A004.c.3
Seismic detection equipment	6A999.a
Semiconductor, test equipment.....	3B002
Semiconductor compound photocathodes	6A002.a.2.c.3
Semiconductor components, extended temperature range.....	3A001.a.2
Semiconductor component design software, computer-aided-design	3D003
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Semiconductor device inspection or testing equipment and systems	3B992.b

Description	ECCN Citation
Semiconductor device or material manufacturing equipment	3B001
Semiconductor devices manufacturing equipment and systems.....	3B991.b
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Semiconductor materials purifying or processing equipment	3B991.b.1.b
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Sensing fibers, optical (not controlled by 6A002).....	6C992
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Sensors, direction finding systems (passive)	7A115
Sensors, industrial infrared	6A002.a
Sensors, linear position feedback unit	2B006.b.2
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 virus	1C351.a.46
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Separators, electromagnetic isotope.....	1B226
Servo valves, gel propellant control systems.....	9A106.d
Severe acute respiratory syndrome-related coronavirus (SARS-related coronavirus) ...	1C351.a.47
Shackles	0A982
Shaft encoders (rotary input type), and rings, discs or scales therefor	3A001.f
Shaving machines, gear	2B003
Sheeppox virus (Sheep pox virus)	1C351.a.48
Shields, police.....	0A979
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Shiga toxin producing Escherichia coli (STEC) of serogroups O26, O45, O103, O104, O111,O121, O145, O157, and other shiga toxin producing serogroups	1C351.c.19
Shigella dysenteriae	1C351.c.20
Ship vessel positioning systems, acoustic.....	6A001.a.1.d
Shims for gas turbine engines.....	9A619.y.6
Shock batons	0A503
Shock belts	0A982
Shock shields	0A503
Shock sleeves.....	0A982
Shock tubes	1C608.b or 1C992.c
Shoes, protective	1A004 or 1A995

Description	ECCN Citation
Shot pistols or shotguns with shoulder stock removed and pistol grip attached	0A502
Shortwave radio technology	5E001.c.4.c
Shotgun shells (non-buckshot).....	0A505.c
Shotgun shell manufacturing/production equipment	0B505
Shotgun shells, buckshot.....	0A505.b
Shotgun shells, technology for the development or production of	0E502
Shotguns.....	0A502
Shotguns made in or before 1898	EAR99
Shotgun trigger mechanisms, magazines, magazine extension tubes, receivers	0A502
Shrink fit machines for rotor fabrication/assembly	2B228.a
Side Scan Sonar & Synthetic Aperture Sonar (SAS) designed for seabed imaging... 6A001.a.1.a.3	
Sidelooking airborne radar (SLAR).....	6A008.d
Sights and sighting devices for firearms	0A504
Sights and sighting devices for firearms that have focal plane array (visible wavelength), technology for	0E504
Signal processor microcircuits	3A001.a.3 Note
Signal generators, frequency synthesizer based.....	3A002.d
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Signal processing devices, acousto-optic.....	3A001.c.3
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
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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
Silicon carbide (SiC) substrate blanks	6C004.d
Silicon, hetero-epitaxial grown multi-layer substrates	3C001.a
Silicon microcircuits	3A001.a
Silicon carbide wafers or semiconductor substrates, ingots, boules or preforms	3C005.a
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
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Single crystal casting control software	9D004.c
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Description	ECCN Citation
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
Single-use cultivation chambers with rigid walls	2B352.b.2.b
Sin Nombre virus	1C351.a.49
Skin friction transducers, wall	9B008
Slapper detonators (Electric).....	1A007 or 3A232.a.3
Slug guns.....	0A502
Slurries and emulsions, commercial prefabricated	1C608.h
Slurry propellant control systems	9A106.d
Smoke bombs.....	1A984
Smoke detector for military aircraft.....	9A610.y.27
Sodium azide.....	1C992.1
Sodium bifluoride	1C350.d.43
Sodium cyanide.....	1C350.d.44
Sodium fluoride	1C350.d.45
Sodium hexafluorosilicate	1C350.d.46
Sodium (Na) metal vapor lasers.....	6A005.b
Sodium sulfide	1C350.d.47
<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 designed for nucleic acid assemblers and synthesizers controlled by 2B352.j that is capable of designing and building functional genetic elements from digital sequence data	2D352
Software, electronic devices	2D002
Software, for coordinating function of multiple subsystems for use in missiles	9D105
Software, for portable electric generator development or production	2D994
Software for Nuclear materials, facilities and equipment.....	0D001
Software for the generation, command and control, or delivery of intrusion software	4D004
Software for systems/equipment/components for the generation, command and control, or delivery of intrusion software	4D001.a
Software, numerical control.....	2D002 and 2D003
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 items controlled by 2A290 or 2A291	2D290
“Software” specially designed or modified for the “development”,	

Description	ECCN Citation
“production” or “use” of equipment controlled by 2A983	2D983
“Software” specially designed or modified for the “development”, “production” or “use” of equipment controlled by 2B991, 2B993, or 2B996, 2B997, and 2B998.....	2D991
“Software” specially designed or modified for the “development”, “production” or “use” of items controlled by 2A992 or 2A993	2D993
“Software” “specially designed” for ground vehicles and related commodities controlled by 0A606, 0B606, or 0C606	0D606
“Software” “specially designed” for commodities controlled by 0A617, “equipment” controlled by 0B617, or materials controlled by 0C617	0D617
“Software” specially designed for the “development” of the equipment controlled by 3A003	3D004
“Software” “specially designed” for the “development,” “production,” operation, failure analysis or anomaly resolution of commodities controlled by 9A515.d	9D515.d
“Software” “specially designed” for the “development,” “production,” operation, failure analysis or anomaly resolution of commodities controlled by 9A515.e	9E515.e
Solar cells, cell-interconnect-coverglass (CIC) assemblies, solar panels, and solar arrays (space qualified)	3A001.e.4 or 3A991
Solenoids.....	3A611.y.10
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
Sonar, active individual	6A001.a.1.e
Sonar processing equipment	6A001.a.2.b
Sonar log equipment	6A001.b
Sonar, Side Scan Sonar (SSS) designed for seabed imaging.....	6A001.a.1.a.3
Sonar, Synthetic Aperture Sonar (SAS) designed for seabed imaging.....	6A001.a.1.a.3
Sonar, underwater navigation system	7A008
Sonar signal processing equipment.....	6A001.a.1.d Note a
SONET (Synchronous Optical Network) technology.....	5E001.b.4

Description	ECCN Citation
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 avionic goods as specified.....	7D004
Source code recovery software	5D001.c.2
Space launch vehicles	9A004.g
Space probes	9A515
Space-qualified focal plane arrays	6A002. a.1.d
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.....	9A515
Spacecraft buses.....	9A515
Spacecraft on-board systems.....	9A515
Spacecraft payloads	9A515
Spacecraft and related commodities	9A004 or 9A515
Spacecraft components	9A515 or 9A010
Spacecraft inertial navigation equipment/components	7A003
Spark-gaps, triggered	3A228.b
Speakers	3A611.y.11
Spectrometry analytical instruments.....	3A999.f
Spherical or spheroidal aluminum powder	1C111.a.1
Spiked batons.....	0A983
Spin forming machines	2B009
Spin forming machines	2B209
Spin forming machines	2B9991
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.d
Spray booms or arrays of aerosol generating units, specially designed for fitting to aircraft, lighter than air vehicles,” or “UAVs”.....	2B352.i.2
Spray cooling thermal management systems.....	3A003
Spray-drying equipment capable of drying toxins or pathogenic microorganisms	2B352.f
Spraying or fogging systems, specially designed for fitting to aircraft, “lighter than air vehicles,” or “UAVs”	2B352.i.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.e
Sprytron tubes, vacuum	3A228.a

Description	ECCN Citation
Sputter deposition production equipment	2B005.e
Sputtering equipment, magnetically enhanced	3B991.b.1.f
SQUIDs (Superconducting quantum interference devices)	6A006.a.1
St. Louis encephalitis virus	1C351.a.50
Staging mechanisms for missiles	9A117
Stainless steel plate	1C999.b
Staphylococcus aureus enterotoxins, hemolysin alpha toxin, and toxic shock syndrome toxin (formerly known as Staphylococcus enterotoxin F)	1C351.d.14
‘Star trackers’ and components therefor	7A004
Statistical multiplex equipment	5A991.b Note a.7
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
Stealth materials, coatings and treatments for signature suppression	0C617.a
Step & repeat equipment, semiconductor wafer processing	3B001.f.1
Stirling cycle engine, air independent	8A002.j.4
Storage phosphor image plates	1A999.b
Storage tanks, containers, receivers (chemical, with total internal volume greater than 100 L) and prefabricated repair assemblies therefor	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
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
Striplines to provide low inductance path to detonators	3A234
Stroboscopic light systems	8A992.c
Structural composites production equipment	1B101
Structures and composite structures, laminate, and manufacturers for missiles	9A110
Stun guns	0A503

Description	ECCN Citation
Stun cuffs	0A982
Submarine diesel engines.....	8A620.d
Submarine engines, n.e.s.....	8A992.g
Submarine nets.....	8A620.e
Submarine vessel positioning systems, acoustic.....	6A001.a.1.d
Submersible systems.....	8A992.e
Submersible vessels, cargo and transport	8A620
Submersible vessels, military.....	8A620
Submersible vessels, oceanographic and associated commodities	8A620
Submersible vehicles operation software (unmanned)	8D999
Submersible vehicles/vehicle systems, equipment, or components (non-military).....	8A002.a
Submersible vehicles/vehicle systems or equipment (non-military)	8A001
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
Suid herpesvirus 1 (Aujeszky's disease; Pseudorabies virus)	1C351.a.51
Suits, protective.....	1A004, 1A995 or 2B352.f.1
Sulphur dichloride.....	1C350.c.7
Sulphur monochloride.....	1C350.c.8
Supercomputers, see Computers	
Superconducting quantum interference devices (SQUIDs).....	6A006.a.1
Superconductive composite conductor	1C005
Superconductive gates, current switching.....	3A001.d.1
Superconductive electrical equipment	9A620.b
Superconductive electromagnetic 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
Surface acoustic wave devices.....	3A001.c.1
Surface coating & processing equipment	2B005
Surface effect vehicles technology	8E002.c.1, c.2

Description	ECCN Citation
Surface finishing equipment	3B991.b.1.k
Surface irregularity measuring equipment/instruments	2B006.c
Surface skimming (shallow bulk) acoustic wave devices.....	3A001.c.1
Surface vessel positioning systems, acoustic.....	6A001.a.1.d
Surface vessels & components.....	8A609
Surface vessels of war and related commodities	8A609
Surface wave radar, high frequency.....	3A611.e
Surreptitious interception devices.....	5A980
Surreptitious interception systems and equipment	5A001.f
Surreptitious interception systems and equipment, software for	5D001 or 5D980
Surreptitious interception systems and equipment, technology for	5E001 or 5E980
Surveillance systems or equipment for IP network communications.....	5A001.j
Survey equipment, surface vessel	6A001.a.1.a.1
Survey equipment, underwater	6A001.a.1.a.2
Survey systems or transmitting and receiving arrays, bathymetric	6A001.a.1.b
Swine fever virus (African)	1C351.a.2
Swine fever virus (Hog cholera virus).....	1C351.a.9
Swine vesicular disease virus (Porcine enterovirus type 9).....	1C351.a.52
Switch fabric development/production technology	5A991.c.10
Switches, filtered and unfiltered mechanical	3A611.y.21
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.....	1C354.b.9
Synthetic Aperture Sonar (SAS) designed for seabed imaging.....	6A001.a.1.a.3
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

Description	ECCN Citation
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
Tear gases and riot control agents	1C607.a
<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, “development,” “production,” or “use” of “software” controlled by ECCN 3D201 or 3D202	3E202
Technology, diamond substrate film.....	3E003.d
Technology, for commodities controlled by 8A609, 8B609, or 8C609, or “software” controlled by 8D609	8E609
Technology, for ground vehicles and related commodities in 0A606, 0B606, 0C606 or software in 0D606.....	0E606
Technology, for items controlled by 0A617, 0B617, 0C617, 0D617.....	0E617
Technology, for items controlled by 8A620, 8B620 or 8D620	8E620
Technology, gas turbine engine components.....	9E003.c, 9E619
Technology, gas turbine engine components.....	9E003.a, 9E619
Technology, helicopter power transfer systems.....	9E003.d, 9E619
Technology, hetero-structure semiconductor development.....	3E003.b
Technology, high output type diesel engines.....	9E003.e
Technology, related to the delivery of intrusion software	4E001.a, .c
Technology, integration software for expert systems	2E003.e
Technology, “production” or “use” of “software” controlled by ECCN 6D201	6E202
“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 “required” for the “development” or “production” of commodities controlled by ECCN 6A002.f - ROICs	6A002.f
“Technology” “required” for the “development,” “production,” operation, failure analysis or anomaly resolution of commodities controlled by 9A515.d.....	9E515.d
“Technology” “required” for the “development,” “production,” failure analysis or anomaly resolution of commodities controlled by 9A515.e	9E515.e
Technology, superconductive electronic device	3E003.c
Technology, tilt rotor/wing power transfer systems development.....	9E003.d, 9E610.a
Technology, vacuum microelectronic device	3E003.a
TEGDN (Triethylene glycol dinitrate) propellant additive	1C111.c.2

Description	ECCN Citation
Telecommunications equipment	5A001
Telecommunications equipment, parts, components for a military application	5A611, 3A611
Telecommunications equipment, high and low temperature tolerant	5A991.a
Telecommunication equipment not controlled by 5A001	5A991
Telecommunications equipment/system software	5D001.c.1
Telecommunications interception equipment	5A001.f
Telecommunication monitoring equipment	5A001.f
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
Television cameras (radiation hardened), or lenses therefor	6A203.d
Television cameras, underwater.....	8A002.d.1.b
Television cameras, underwater.....	8A002.d.1
Television cameras, underwater	8A002.d.1.a
Television cameras, underwater.....	8A992.a.2
Television systems (camera, lights, monitoring and signal transmission equipment), remote operation with submersible vehicle	8A992.a.1
Tellurium (Te).....	6C002.a
Tempest type equipment	5A003.b
Tension stretchers for prepregs/preform production	1B101.d
Terminal interface equipment	4A994.i
Terrestrial, marine acoustic equipment.....	6A991
Terrestrial equipment, specially designed for spacecraft.....	9A515
Teschen disease virus (Porcine Teschovirus)	1C351.a.38
Test benches/stands, for rockets/motors/rocket engines.....	9B117
Test, calibration or alignment equipment for equipment controlled by 7A.....	7B001
Test equipment - propellants and their constituents	1B115
Test equipment - specially designed for testing finished or unfinished semiconductor devices.....	3B002
Test facilities and equipment “specially designed” for military certification, qualification, or testing of commodities controlled by 1A607.e, .f, .g, .h, or .j or by USML XIV(f), except for XIV(f)(1).....	1B607.b
Test, inspection, and production commodities for military electronics.....	3B611
Test models for defense articles.....	0A617

Description	ECCN Citation
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
Tetrazines.....	Annex to Cat 1 List of Explosives 47
Tetrodotoxin.....	1C351.d.16
TEX (4,10-Dinitro-2,6,8,12-tetraoxa-4, 10- diazaisowurtzitane)	Annex to Cat 1 List of Explosives 45
Thallium arsenic selenide (Tl ₃ AsSe ₃ or TAS)	6C004.b.3
Thecaphora solani	1C354.b.11
Thermal batteries	9A604
Thermal ionization mass spectrometers (TIMS).....	3A233.c
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.22
Thionyl chloride.....	1C350.c.9
Thrust tabs, thrust vector control subsystems	9A106.c
Thrust vector control sub-system.....	9A106.c
Thrusters, satellites	9A515
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
Thumbwheels.....	3A611.y.22
Thyristor devices and modules, solid-state pulsed power switching	3A001.g
Tick-borne encephalitis virus (Far Eastern subtype, formerly known as Russian Spring-Summer encephalitis virus)	1C351.a.53
Tick-borne encephalitis virus (Siberian subtype, formerly known as West Siberian virus).....	1C351.b.3
Tilletia indica	1C354.b.10
Tilt rotor/tilt wing power transfer system technology	9E003.d, 9E610.a
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
Tires (aircraft)	9A610.y.1
Tires (ground vehicles), except run flat	0A606.15
Titanium alloys	1C002.b.3
Titanium alloys, as tubes/solid forms/forgings	1C202.b

Description	ECCN Citation
Titanium alloy/powder or particulate form	1C002.c.1.c
Titanium aluminides	1C002.a.2
Titanium-based alloys.....	1C002.b.3
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 and equipment “specially designed” for the “development,” “production,” repair, overhaul, or refurbishing of commodities controlled by 1A607.e, .f, .g, .h, or .j or by USML Category XIV(f).....	1B607.c
Tooling for powder metallurgy rotor component manufacture	9B009
Torpedo nets.....	8A620.e
Torquemeter assembly software	9D619.b.9
Torture, specially designed implements of.....	0A983
Touchpads	3A611.y.28
Tow-placement machines	1B001.g, 1B101.a
Towed acoustic hydrophone arrays	6A001.a.2.b
Toxic gas monitors and monitoring systems	2B351
Toxins	1C350, 1C351, 1C355 or 1C395
Trackballs.....	3A611.y.12
Tracking radar.....	6A008.1.1
Tracking systems, precision	6A108.b.1
Tracking systems	6A008.1
Tractors and parts.....	9A990
Transceivers, radio.....	5A001.b.2 through 10
Transceivers, radio.....	5A991.b.6 or 7
Transcoders (translation encoders)	5A991.b Note a.6
Transducers, wall skin friction	9B008
Transducers, acoustic projectors.....	6A001.a.1.c
Transformers, electric	3A611.y.13
Transient recorders (Waveform digitizers).....	3A002.h or 3A992.g
Transistor test equipment, S-parameter measurement.....	3B002.a
Transistors, microwave	3A001.b.3, 3A611.d
Translation encoders (transcoders)	5A991.b Note a.6
Transmission fluids, automatic	1C980
Transmission equipment	5A991.b
Transmission equipment for Improvised Explosive Devices (IED).....	5A001.h
Transmissions for tracked combat vehicles	0A606.d
Transmit/receive or transmit modules, transmit/receive MMICs or transmit MMICs...3A001.b.12	
Transmit/receive or transmit module technology	3E611.b.2, 3E001
Transmultiplex equipment	5A991.b Note a.9
Transport, handling, activation, and launch equipment.....	9A115

Description	ECCN Citation
Traveling wave tubes (TWTs), industrial	3A001.b.1.a
Tributyl phosphate	1C999.d
Triethanolamine	1C350.c.10
Triethanolamine hydrochloride.....	1C350.d.48
Triethyl phosphite	1C350.c.11
Triethylene glycol dinitrate (TEGDN).....	1C111.c.2
Triggered spark-gaps	3A228.b
Triggers, high voltage	3A999.c
Tri-isopropyl phosphite.....	1C350.d.49
Trimethyl phosphite	1C350.c.12
Tritium, compounds & mixtures.....	1C235
Tritium plant or facilities equipment	1B231.b
Tritium production recovery, extraction & concentration handling facilities or plant.....	1B231.a
Tritium targets for production of tritium and related development and production technology.....	1A231
Tubes, gas krytron	3A228.a
Tubes, vacuum sprytron	3A228.a
Tunable band-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, 9D619
Turbines, gas aero engines.....	9A001, 9A619.a
Turbo prop engines	9A619.a
Turbocompound engines.....	9A101
Turboexpanders and turboexpander-compressors	1B232
Turbofan & turbojet engines, lightweight.....	9A101, 9A619
Turboprop engine systems specially designed for items controlled by 9A012	9A102.a
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), or lenses therefor	6A203.d
TV cameras, radiation-hardened, not specified in 6A203	6A999.b
Two dimensional focal plane arrays	6A002.a.3

Description	ECCN Citation
TWTs (Traveling Wave Tubes).....	3A001.b.1.a
UAVs (non-military).....	9A012.a
UAV (military) production facilities	9B610.c
Ultra high temperature ceramic composites	1C107.d.3
Ultrasonic test equipment for nuclear reactors	2A291.d
Underwater breathing apparatus, self-contained.....	8A992.h
Underwater cameras, photographic	8A002.d, e or f
Underwater camera equipment, n.e.s.....	8A992.d
Underwater communications systems.....	5A001.b.1
Underwater ElectroMagnetic Receivers (UEMR).....	6A006.e
Underwater ElectroMagnetic Receivers (UEMR) software	6D003.f.3 or f.4
Underwater electric field sensors.....	6A006.b
Underwater lights.....	8A992.j
Underwater noise reduction technology	8E002
Underwater (propeller) noise reduction software	8D002
Underwater propulsion equipment.....	8A992.j
Underwater rebreathing apparatus	8A620.f
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	9A012.a, 9A120, 9A610
Unmanned aerial vehicles and associated systems, production equipment.....	9B010
Unmanned aerial vehicles, associated equipment, systems, and components	9A012.b, 9A610
Unmanned submersible vehicles.....	8A001.c.1
Unmanned submersible vehicle operation software	8D999
Unmanned tethered submersible vehicles.....	8A001.c.2
Unmanned untethered submersible vehicles.....	8A001.c.1
Uranium, depleted.....	1A290
Uranium titanium alloys	1C004
Urine collection bags/pads/cups/pumps for military aircraft.....	9A610.y.21
Vaccines and immunotoxins	1C991
Vacuum electronic devices	3A001.b
Vacuum furnaces	2B226
Vacuum furnaces	2B227
Vacuum induction furnaces	2B226
Vacuum induction furnace, power supplies.....	2B226

Description	ECCN Citation
Vacuum melting, remelt & casting furnaces.....	2B227
Vacuum microelectronic device development/production technology.....	3E003.a
Vacuum pumps	2B231
Vacuum pumps	2B350.i
Vacuum pumps, bellows-sealed scroll-type	2B233
Vacuum tubes, electronic microwave	3A001.b.1
Vacuum sprytron tubes	3A228.a
Vacuum valves, piping, flanges, gaskets	2B999.k
Valves, austenitic stainless steel	2B999.n
Valves, bellows seal.....	2A226
Valves, bellows.....	2B350.g
Valves (check) for hydraulic and pneumatic systems in military aircraft	9A610.y.4
Valves, double-seal.....	2B350.g
Valves, of or lined with stainless steel, copper-nickel alloy or other alloy steel (not having the characteristics of valves controlled by 2B350.g)	2A992
Valves, diaphragm	2B350.g
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
Vapor sterilizable freeze drying equipment.....	2B352.e
Variola virus.....	1C351.a.54
Vector processing unit technology.....	3E002
Vector processors/assemblies	4A003
Vehicle position determination software	6D103
Vehicles, “specially designed” for a military use	0A606.a
Vehicles, unarmed, off-road, and armored	0A606.b.1
Velocity interferometers (VISARs)	6A225
Velocity measurement equipment, underwater.....	6A001.b
Venezuelan equine encephalitis virus.....	1C351.a.55
Ventilated full or half (protective clothing) suits.....	2B352.f.1
Verocytotoxin producing E. coli (VTEC)	1C351.c.17
Verotoxin	1C351.d.13
Vesicular stomatitis virus.....	1C351.a.56
Vessels, austenitic stainless steel	2B999.n
Vessel positioning systems, acoustic	6A001.a.1.d
Vessel noise reduction equipment	8A002.o.3
Vessels, marine	8A001, 8A609, 8A620
Vessels, marine systems or equipment	8A992
Vessels, monel	2B999.f
Vessels, stainless steel	2B999.e

Description	ECCN Citation
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.21
Video cameras incorporating solid state sensors	6A003.b.1
Vinylidene fluoride copolymers, components of.....	1A001
virulans, fungi (Colletotrichum kahawae)	1C354.b.1
Virus protection software, mass market.....	5D992
Viruses	1C351 or 1C353
Viruses, animal pathogens	1C351.a
Viruses, human pathogens	1C351.a or .b
Viruses, plant pathogens	1C354.c
Viscous software, 2D or 3D engine flow modeling.....	9D004.a
Viscumin (Viscum album lectin 1).....	1C351.d.17
Vision systems, underwater	8A992.a
Vision systems, underwater	8A002.d
Voice print identification and analysis equipment and parts	3A980
Volkensin	1C351.d.18
Wafer handling systems, semiconductor	3B001.e
Wafer processing, semiconductor manufacture	3B001.e
Wafer probing equipment	3B992.b.3
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 cannon systems for riot or crowd control, and “parts” and “components” “specially designed” therefor	0A977
Water cannon systems “software” “specially designed” for the “development,” “production” or “use” of commodities controlled by 0A977.....	0D977
Water cannon systems “technology” “required” for the “development” or “production” of commodities controlled by 0A977.....	0E977
Water (deep) fording kits for ground vehicles.....	0A606.e
Water jet cutting machines (CNC).....	2B001.e.1.a
Water jet (pumpjet) propulsion systems	8A002.p
Waterplane area vessels (small).....	8E002.c.4
Water tanks (potable) and accessories for military aircraft	9A610.y.17
Water tanks (potable) and accessories for submersible vessels.....	8A620.y.7
Water tanks (potable) and accessories for surface vessels of war	8A609.y.7
Water tunnels, propulsion model acoustic field measurement	8B001

Description	ECCN Citation
Water-hydrogen sulphide exchange tray columns	1B229
Wave division multiplex equipment	5A991.b.5
Waveform digitizers (Transient recorders).....	3A002.h
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.57
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
Windows (ground vehicle), except those for armored vehicles	0A606.y.16
Windshield water and wiper systems for military aircraft.....	9A610.y.22
Wing folding system software	0D521 No. 3
Wing folding system technology	9E003.j
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, flash	3A999.c
X-ray (non planar) inspection equipment, rocket motors	9B007
Xanthomonas albilineans	1C354.a.1
Xanthomonas axonopodis pv. citri (Xanthomonas campestris pv, citri A) (Xanthomonas campestris pv. citri).....	1C354.a.2
Xanthomonas oryzae.....	1C354.a.3
Xanthomonas oryzae pv. oryzae (syn. Pseudomonas campestris pv. oryzae)	1C354.a.3
Yellow fever virus.....	1C351.a.58
Yersinia pestis.....	1C351.c.22
Yttrium oxide (yttria) (Y ₂ O ₃), crucibles made or coated.....	2A225.a.8
Zinc germanium biphosphide	6C004.b.4
Zinc germanium diphosphide	6C004.b.4
Zinc germanium phosphide.....	6C004.b.4

Description	ECCN Citation
Zinc selenide (ZnSe), substrate blanks	6C004.a
Zinc sulphide (ZnS), substrate blanks.....	6C004.a
Zirconium fluoride (ZrF ₄) glass	6C004.e
Zirconium metal particulate.....	1C111.a.2.a.1
Zirconium metal, alloy, compounds, or manufacturers	1C234
Zirconium oxide (zirconia) (ZrO ₂) made/coated crucibles.....	2A225.a.9
Zoonotic pathogens and “toxins”	1C351

Note: Prior to October 15, 2013, the CCL contained certain ECCNs that were only included as cross references to items subject to the export control regulations administered by the Nuclear Regulatory Commission. ECCNs formerly listed on the CCL that, as of October 15, 2013 were subject to the export licensing authority of the Nuclear Regulatory Commission at 10 CFR part 110 are: 0A001, 0B001, 0B002, 0B003, 0B004, 0B005, 0B006, 0C001, 0C002, 0C004, 0C005, 0C006, 0C201 and 1C012. See Section § 774.1(b) for additional information.