

**ALPHABETICAL INDEX
TO THE COMMERCE CONTROL LIST**

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| Column, liquid-liquid exchange, for lithium amalgams | 1B233.b.1 |
| Combined cycle engines/components | 9A011 |
| Combustion regulation devices, missile engines | 9A118 |
| Common channel signaling equipment/systems | 5A991.c.8 |
| Common channel signaling, equipment for the development of equipment employing | 5B001.b.5 |
| Common channel signaling, technology for the development of equipment employing | 5D001.c.5 |
| Communication channel controllers | 5A991.b.4.b |
| Communication equipment, airborne | 7A994 |
| Communication (mobile) equipment, assemblies and components | 5A991.g |
| Communications interception devices, parts and accessories | 5A980, 5D980, 5E980 |
| Communications cable systems, secure | 5A002.a.7 |
| Communications Systems (underwater) | 5A001.b.1 |
| Compasses | 8A992.j |
| Compasses (gyro-astro) & other position or orientation deriving devices | 7A004 |
| Compasses (gyro-astro) & devices, other than those of 7A004 | 7A104 |
| Compilers (Source code Software) for multi-data-stream processing equipment | 4D003.a |
| Components made from Fluorinated compounds | 1A001 |
| Components/structures for spacecraft | 9A010 |
| Composite conductors, superconductive | 1C005 |
| Composite or laminate development software | 1D002 |
| Composite structures, as tubes | 1A202 |
| Composite structures or laminates | 1A002 |
| Composite (structural) production equipment, n.e.s. | 1B999.e |
| Composite (structural) production equipment controlled by 1B999, software for | 1D999 |
| Composite materials, ceramic-ceramic | 1C007.f |
| Composites production equipment | 1B001 |
| Composite structures for propulsion systems or space vehicles | 9A110 |
| Composites (structural) production equipment | 1B101 |
| Compound rotary tables for machine tools | 2B009.c |
| Compound semiconductor integrated circuits | 3A001.a.11 |
| Compound semiconductor photocathodes | 6A002.a.2.b.3 |
| Compressors | 0B001.d.3 |
| Compressors, hydrogen sulphide gas | 0B004.b.1.b |
| Compressors, turboexpander | 1B232 |
| Compressors, turbo/centrifugal/axial flow | 0B001.b.2.a |
| Compressors, UF6 resistant | 0B001.h.4 |
| Computer, electronic assemblies & equipment & components | 4A001, 4A003, 4A004, 4A994 |
| Computer, electronic components | 4A101 |
| Computer, electronic components | 4A102 |
| Computer aided design (CAD) equipment for semiconductor devices or integrated circuits | 3B991.b.2.c |
| Computer-aided-design (CAD) software for IC's & semiconductors | 3D003 |
| Computer interconnect equipment | 4A003.g |
| Computer/assemblies/components, neural | 4A004.b |
| Computer/assemblies/components, optical | 4A004.c |
| Computers, electronic assemblies, and related equipment and components not controlled by 4A001 or 4A003 | 4A994 |
| Computers, analog & analog ruggedized | 4A101 |
| Computers for fingerprint equipment | 4A980 |
| Computers, digital ruggedized | 4A101 |
| Computers/assemblies/components, systolic array | 4A004.a |
| Computers, analog | 4A001 |
| Computers, digital | 4A003 |
| Computers, digital | 4A004 |

| Description | ECCN Citation |
|--|----------------|
| Computers, digital | 4A001 |
| Computers, having information security characteristics | 4A001.b |
| Computers, hybrid | 4A102 |
| Computers and electronic assemblies (hybrid), and specially designed components therefor | 4A994.k |
| Computers, with extended operating temperature range | 4A001.a.1 |
| Computers, radiation hardened | 4A001.a.2 |
| Condensers for use in nuclear reactors | 2A290.a |
| Condensers or heat exchangers | 2B350.d |
| Conductive polymers | 1C001.c |
| Conductors, superconductive composite | 1C005 |
| Congo-Crimean haemorrhagic fever virus (a.k.a. Crimean-Congo haemorrhagic fever virus) | 1C351.a.2 |
| Conotoxin | 1C351.d.3 |
| Contactors, chemical exchange (ammonia-hydrogen) | 0B004.b.2.b |
| Contactors, liquid-liquid centrifugal | 0B001.e.1 |
| Containers, chemical | 2B350.c |
| Containment facilities | 2B352.a |
| Continuous mixers | 1B118 |
| Contrarotating propellers | 8A002.o.1.b |
| Control rods, for nuclear reactors | 0A001.c |
| Control units for metallurgical melting & casting furnaces | 2B227 |
| Control systems, on-line development of gas turbine engines | 9B002 |
| Controllable-pitch propellers | 8A002.o.2.a |
| Controlled atmosphere melting & casting furnaces | 2B227 |
| Controlled environment (vacuum or inert gas) induction furnaces | 2B226 |
| Controlled nucleation thermal decomposition (CNTD) equipment | 2B005.a.1.b |
| Controllers, machine tool (CNC) | 1B001.a |
| Controllers for high explosive handling robots | 2B207 |
| Controllers, robot | 2B007 |
| Converter integrated circuits | 3A001.a.5 |
| Converter interfaces for digital video magnetic tape recorders | 3A002.a.4 |
| Converters, frequency | 0B001.c.11 |
| Converters, frequency | 3A225 |
| Converters, frequency extender | 3A001.b.7 |
| Cooling equipment for crucibles | 0B001.i.5 |
| Cooling equipment for molten uranium | 0B001.g.2 |
| Cooling fluid (fluorocarbon electronic) development, production, or use technology | 1E994 |
| Cooling fluids - electronic | 1C006.d |
| Cooling fluids, fluorocarbon electronic | 1C006.d |
| Cooling systems, freon and chilled water | 1B999.d |
| Copper or phosphor bronze mesh packings | 1A226 |
| Copper metal vapor lasers | 6A005.b |
| Coprocessor microcircuits | 3A001.a.3 Note |
| Coprocessors or accelerators, graphics | 4A003.d |
| Core grid plates | 0A001.h |
| Core support structures | 0A001.h |
| Correlation-velocity sonar log equipment | 6A001.b |
| Counter-current solvent extractors | 0B006.c |
| Coxiella burnetii | 1C351.b.2 |
| Crime science laboratories, parts and accessories, nonmilitary mobile | 9A980 |
| Crimean-Congo haemorrhagic fever virus (a.k.a. Congo-Crimean haemorrhagic fever virus) | 1C351.a.2 |
| Critically safe tanks, nuclear fuel reprocessing | 0B006.b |
| Cross-flow filtration equipment | 2B352.d |
| Crossed-field amplifier tubes | 3A001.b.1.b |
| Crucibles, liquid actinide resistant | 2A225 |
| Crucibles, resistant to molten uranium | 0B001.g.2 |
| Crucibles, resistant to molten uranium | 0B001.i.5 |
| Crucibles, tantalum | 2A225.b.c |
| Crude petroleum or shale oil | 1C981 |
| Cryocoolers for optical sensors, space qualified | 6A002.d.1 |
| Cryocoolers for optical sensors, non-space qualified | 6A002.d.2 |
| Cryogenic distillation towers & cold boxes | 0B004.b.3.a |
| Cryogenic heat exchangers for UF6/Carrier gas separation | 0B001.d.7.a |

| Description | ECCN Citation |
|--|----------------------------|
| Cryogenic refrigeration units | 0B001.d.7.b |
| Cryoseparators | 0B001.d.7.a |
| Cryptanalytic equipment or devices, digital | 5A002.a.2 |
| Cryptoanalytic equipment and components, n.e.s. | 5A992 |
| Cryptographic equipment and components, n.e.s. | 5A992 |
| Cryptography equipment or devices, digital | 5A002.a.1 |
| Cryptography equipment or devices, analog | 5A002.a.3 |
| Cryptologic equipment, software for the development, production or use of | 5D992 |
| Cryptologic equipment and components, n.e.s. | 5A992 |
| Cryptologic equipment, technology for the development, production or use of | 5E992 |
| Crystal pullers and furnaces | 3B991.b.1.c |
| CTPB (Carboxy-terminated polybutadiene) | 1C111.b.1 |
| Custom integrated circuits | 3A001.a.2 and a.10 |
| Cutting tool inserts, single diamond point | 2B998.b |
| Cutting machines, gears | 2B003 |
| Cutting equipment for prepregs/preform production | 1B101.d |
| CVD (Chemical vapor deposition) equipment | 1B001.d.2 |
| CVD (Chemical vapor deposition) equipment | 2B005.a |
| CVD (Chemical vapor deposition) equipment | 1B101.c.2 |
| CVD (Chemical vapor deposition) equipment, plasma enhanced | 3B001.d |
| CVD (Chemical vapor deposition) furnaces, other than those controlled by 2B005.a, designed or modified for the densification of carbon-carbon composites | 2B105 |
| CW (Chemical warfare) precursors | 1C350 |
| Cyanogen chloride (506-77-4) | 1C355.b.1.b |
| Cylinder wall lubrication technology, diesel engines | 9E003.e.3 |
| DACs (Digital-to-analog converters) | 3A001.a.5 |
| DBRN (Data Based Referenced Navigation) system technology | 7E004.a.7 |
| Damping, flotation or lubricating fluids | 1C006.c |
| Data acquisition systems for gas turbine engine development | 9B002 |
| Data (message) switching equipment, systems, components and assemblies | 5A991.c.1 |
| Data acquisition equipment for wind tunnels, automatic | 9B005 |
| Data Based Referenced Navigation (DBRN) systems for underwater navigation, technology | 7E004.a.7 |
| Datagram packet routing or switching equipment | 5A991.c.3 |
| Decanters, centrifugal | 2B352.c |
| Decontamination equipment | 1A004, 1A995 |
| Deep-hole drilling machines | 2B001.f |
| Defect, error or contaminant detection equipment for wafers or substrates | 3B992.b.1 |
| Deformable mirrors | 6A004.a.1 |
| Degassing equipment | 2B350 |
| DEGDN (diethylene glycol dinitrate) | 1C111.c.5 |
| Dengue fever virus | 1C351.a.3 |
| Depleted Uranium | 1A290 |
| Depleted Uranium | 0C001 |
| Depth sounders | 6A001.a.1 |
| Design integration of guidance sets, software | 7D103 |
| Desublimers for UF6 removal | 0B002.b |
| Detection and protection equipment and components | 1A004, 1A995, 2B351, 2B352 |
| Detection equipment, seismic | 6A999.a |
| Detection equipment, radiation | 1A004, 1A995, 1A999.a |
| Detection equipment, radiographic | 1A999.b |
| Detection systems for explosives and detonators | 2A983, 2D983, 2E983 |
| Detection or location systems (acoustic) | 6A001.a.1.b |
| Detectors, optical | 6A002.a |
| Detectors, radiation hardened | 6A102 |
| Detectors, space-qualified solid state optical | 6A002.a.1 |
| Detonation cord | 1C018.b, 1C992.c |
| Detonator detection | 2A983, 2D983, 2E983 |
| ●Detonators and multipoint initiation systems | 3A229 |
| ●Detonator firing sets, for multiple detonators of 3A232 | 1A007, 3A229 |
| Detonators, electric or non-electric | 1C018.d, 1C992.e |
| ●Detonators, exploding bridge wire (EBW) | 1A007 |
| ●Detonators, exploding bridge (EB) | 1A007 |

| Description | ECCN Citation |
|---|----------------|
| ●Detonators, exploding foil initiators (EB) | 1A007 |
| ●Detonators, slapper (electric) | 1A007 |
| Deuterated compounds, (e.g. Deuterated paraffins) | 0C004 |
| Deuterium & deuterium compounds as mixtures & solutions | 0C004 |
| Deuterium/deuterium compound production plant, equipment- & components | 0B004 |
| Deuterium fluoride-carbon dioxide (DF-CO2) lasers | 6A005.d.5 |
| Deuterium fluoride (DF) lasers | 6A005.d.5 |
| Di-isopropylamine | 1C350.d.4 |
| Diacetoxyscirpenol toxin | 1C351.d.1.14 |
| Dialkyl (Me, Et, n-Pr or i-Pr) N,N-dialkyl (Me, Et, n-Pr, or i-Pr)-phosphoramidates | 1C355.a.2.c |
| Diamond cutting tool inserts, single point | 2B998.b |
| Diamond film substrate development/production technology | 3E003.d |
| Diaphragms, made from fluoroelastomers | 1A001.c |
| Diaphragm valves | 2B350.g |
| Dibromotetrafluoroethane based damping or flotation fluids | 1C006.c.1 |
| Die bonder, stored program controlled | 3B991.b.3.a |
| Diesel engines for submarines | 8A018.b.1 |
| Diesel engines, nonmagnetic | 8A018.b.3 |
| Dies, bellows-forming | 2B228.c |
| Diesel engines,n.e.s. | 9A990 |
| Diesel cycle engine, air independent | 8A002.j |
| Diethyl ethylphosphonate | 1C350.b.3 |
| Diethyl methylphosphonite | 1C350.b.4 |
| Diethyl phosphite | 1C350.c.1 |
| Diethyl-N, N-dimethylphosphoramidate | 1C350.b.5 |
| Diethylaminoethanol | 1C350.d.3 |
| Diethylene glycol dinitrate (DEGDN) | 1C111.c.5 |
| Diffuser plates | 0A001.h |
| Diffusion bonding technology, metal working | 2E003.b.1.b |
| Diffusion bonding technology/data, super alloys or Ti alloys | 2E003.b.2.b |
| Diffusion bonding tools, dies, molds or fixtures | 1B003 |
| Digital array processors | 3A001.a.3 Note |
| Digital computers | 4A003 |
| Digital computers | 4A994.b |
| Digital computers, electronic assemblies & related equipment | 4A003 |
| Digital computers, electronic assemblies & related equipment | 4A001 |
| Digital computers, fault tolerant | 4A003.a |
| Digital computers, logic processors | 4A003 |
| Digital computers, ruggedized | 4A101 |
| Digital computers, signal processing | 4A003 |
| Digital computers, vector processors | 4A003 |
| Digital computer electronic assemblies, parallel processing | 4A003.c |
| Digital computer systems | 4A004 |
| Digital computer systems | 4A003.c |
| Digital computer systems | 4A003.b |
| Digital computer systems | 4A001 |
| Digital coprocessors | 3A001.a.3 Note |
| Digital differential analyzer, ruggedized | 4A101 |
| Digital electronic control software for propulsion systems, aerospace test facilities or air breathing aero-engine test facilities | 9D003.a |
| Digital exchanges, telecommunication | 5A991.c |
| Digital instrumentation tape data recorders | 3A002.a.3 |
| Digital signal processors | 3A001a.3 Note |
| Digital signal processors | 4A003 |
| Digital time delay generators | 3A999.e1 |
| Digital video magnetic tape recorders | 3A002.a.2 |
| Digital-to-analog converter integrated circuits (DACs) | 3A001.a.5 |
| Digitally controlled radio receivers | 5A001.b.5 |
| Digitizers, waveform | 3A002a.5 |
| Dimensional inspection or measuring systems or equipment not controlled by 2B006 | 2B996 |
| Dimensional inspection machines | 2B206 |
| Dimensional inspection equipment/systems | 2B006.a |

| Description | ECCN Citation |
|--|---------------|
| Dimensional inspection equipment/systems | 2B006.c |
| Dimensional measuring equipment, instruments/systems | 2B006.b |
| Dimethyl ethylphosphonate | 1C350.b.10 |
| Dimethyl methylphosphonate | 1C350.b.11 |
| Dimethyl phosphite | 1C350.c.2 |
| Dimethylamine | 1C350.d.5 |
| Dimethylamine hydrochloride | 1C350.d.6 |
| Dinitrogen tetroxide (Nitrogen dioxide) | 1C111.a.3.b |
| Dinitrogen trioxide | 1C111.a.3.a |
| Dinitrogen pentoxide | 1C111.a.3.c |
| 2,2' Dinitropropanol | 1C018 |
| Diodes, laser | 6A005.d.1 |
| Diortho tolyl-urethane | 1C018.g |
| Diphenyl urethane | 1C018.f |
| Direct view imaging equipment | 6A002.c |
| Direct-acting hydraulic pressing technology for metal working | 2E003.b.2.c |
| Direction finding equipment & components, surveillance | 5A001.e |
| Direction finding equipment, parts & components, navigation, not controlled under 7A003 or 7A103 | 7A994 |
| Direction finding systems, equipment & components, navigation (inertial) | 7A003 |
| Direction finding systems, equipment & components, navigation, not controlled under 7A003 | 7A103 |
| Directional solidification casting control software | 9D004.c |
| Directional solidification casting equipment | 9B001.a |
| Discharge type arms | 0A985 |
| Disk drive (magnetic hard) development or production technology | 4E993.c |
| Disk drives | 4A994.d |
| ●Disruptors | 1A006.b |
| Dissolvers, for nuclear fuel | 0B006.b |
| Distillation columns | 2B350.e |
| Distillation columns, hydrogen-cryogenic | 1B228 |
| Distillation equipment, purification of UF6 | 0B003.b.2 |
| Distillation Towers (ammonia) | 0B004.b.4.b |
| Distillation towers and cold boxes (hydrogen cryogenic) | 0B004.b.3.a |
| Distillation towers, packings | 1A226 |
| Dive computers | 8A992.j |
| Dobrava (pulmonary and renal syndrome-haemorrhagic fever viruses) | 1C351.a.31 |
| Doppler laser interferometers (DLIs) | 6A225 |
| Double seal valves | 2B350.g |
| Drilling equipment | 2B999.h |
| Drilling machines, deep-hole | 2B001.f |
| Dry etching equipment, anisotropic plasma | 3B001.c |
| Dye lasers | 6A005.c |
| Dye lasers | 6A205 |
| Dynamic adaptive routing equipment | 5A991.c.9 |
| Dynamic signal analyzers | 3A002.c.2 |
| Dynamic wavefront (phase) measuring equipment | 6A005.f.1 |
| Dynamic adaptive routing software | 5D991.a |
| E-beam welders | 2B999.e |
| Earth moving equipment, large | 2B999.h.2 |
| Eastern equine encephalitis virus | 1C351.a.4 |
| EB-PVD (Electron beam physical vapor deposition) equipment | 2B005.c |
| Ebola virus | 1C351.a.5 |
| Eddy current test equipment for nuclear reactors | 2A291.d |
| EDMs, non-wire feed types | 2B001.d |
| EDMs, wire feed type | 2B991.d.1 |
| Electric cattle prods | 0A985 |
| Electric detonators, explosive | 3A232a |
| Electric propulsion engines | 8A002o.2.b |
| Electrical discharge machines, non wire feed (CNC) | 2B001.d |
| Electrical discharge machines (EDM) of the wire feed type | 2B991.d.2 |
| Electrically driven explosive detonators | 3A232..a |
| Electro-optic materials | 6C004 |
| Electro-optical device manufacturing equipment and systems | 3B991.b Note |

| Description | ECCN Citation |
|--|----------------------------|
| Electro-optical integrated circuits | 3A001.a.6 |
| Electrochemical reduction cells | 0B001.e.3 |
| Electrochemical reduction cells, feed equipment | 0B001.e.4 |
| Electrolysis cells, amalgam lithium isotope separation | 1B233.b.3 |
| Electrolytic cells for fluorine production | 1B225 |
| Electrolytic cells for fluorine production not controlled by 1B225 | 1B999.a |
| Electromagnetic interference (EMI) protection technology | 7E102 |
| Electromagnetic isotope separation equipment & components | 0B001.j |
| Electromagnetic isotope separation plant | 0B001.a.9 |
| Electromagnetic isotope separators | 1B226 |
| Electromagnetic pulse (EMP) protection, detectors | 6A102 |
| Electromagnetic pulse (EMP) protection technology, avionics | 7E102 |
| Electromagnetic radiation sensors, optical fiber | 6A002.d.3.a |
| Electromagnetic signature reduction devices | 1A101 |
| Electromagnetic signature reduction materials | 1C101 |
| Electromagnetic underwater communications systems | 5A001.b.1.b |
| Electromagnets, superconductive | 3A201.b |
| Electromagnets, superconductive | 3A001.e.3 |
| Electron beam cutting machines (CNC) | 2B001.e.1.b |
| Electron beam equipment for mask making/semiconductor devices | 3B001.f.2 |
| Electron beam equipment for projection image transfer | 3B991.b.2.g |
| Electron beam guns, high power | 0B001.g.1 |
| Electron beam melting furnaces | 2B227.b |
| Electron beam physical vapor deposition (EB-PVD) equipment | 2B005.c |
| Electron beam sensitive resist materials | 3C002.b |
| Electron beam systems, for probing semiconductor devices | 3B992.b.5 |
| Electron beam systems | 3B991.b.1.j |
| Electron beam test systems | 3B992.b.5 |
| Electron bombardment mass spectrometers | 3A233.d |
| Electron cyclotron resonance (ECR) CVD equipment | 3B001.d.1.b |
| Electron cyclotron resonance (ECR) plasma dry etching equipment | 3B001.c.1.b |
| Electron tube manufacturing equipment and components | 3B991.a |
| Electron tube inspection or testing equipment and components | 3B992.a |
| Electronic assemblies | 4A003 |
| Electronic assemblies and related equipment not controlled by 4A001 or 4A003 | 4A994 |
| Electronic assemblies specially designed to provide feedback capability in systems controlled by 2B006.b.1.c | 2B006.b.1.d |
| Electronic beam gun, Strip | 0B001.g.1 |
| Electronic beam gun, Scanning | 0B001.g.1 |
| Electronic cameras | 6A003.a.5 |
| Electronic components | 3A001 |
| Electronic components | 3A201 |
| Electronic components | 3A101 |
| Electronic components and materials inspection or testing equipment, components and accessories | 3B992 |
| Electronic components and materials manufacturing equipment | 3B991 |
| Electronic components and materials manufacturing equipment, not controlled by 3B001 | 3C001 |
| Electronic computers | 4A994.a |
| Electronic computers & related equipment | 4A001, 4A003, 4A004, 4A994 |
| Electronic computers & related equipment | 4A101 |
| Electronic computers & related equipment | 4A102 |
| Electronic controls, for nuclear reactors | 0A001.d |
| Electronic cooling fluids | 1C006.d |
| Electronic framing cameras | 6A203.b.2 |
| Electronic streak cameras & streak tubes | 6A003.a.3 |
| Electronic streak cameras & streak tubes | 6A203.b.1 |
| Electronically steerable antennae, phased array | 5A001.d |
| Electroplating equipment | 2B999.i |
| EMP/EMI protection technology, avionic systems | 7E102 |
| Encoders, rotary input shaft type | 3A001.f |
| Encryption equipment, assemblies & components | 5A002 |
| Encryption software | 5D002 |
| End effectors, robot | 2B207 |
| End effectors, robot | 2B007 |

| Description | ECCN Citation |
|--|---------------------|
| 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 |
| Enrichment plant, isotope | 0B001 |
| Enterohaemorrhagic Escherichia coli, serotype O157 and other verotoxin producing serotypes | 1C351.c.15 |
| Environmental chambers | 1B018.b, 9B106.b |
| Environmental chambers, capable of simulating flight conditions | 9B106.a |
| Epitaxial growth equipment | 3B001.a |
| Epitaxial growth stored program controlled equipment | 3B991.b.1.d |
| Epitaxial wafers, Cadmium telluride (CdTe) | 6C002.b |
| Epoxy resin matrix impregnated carbon fibers or filamentary materials | 1C010.e Note 1 |
| Equine morbillivirus (Hendra virus) | 1C351.a.29 |
| Erbium oxide (erbia) (Er ₂ O ₃) made/coated crucibles | 2A225.a.4 |
| Erhlichia ruminantium (a.k.a. Cowdria ruminantium) | 1C360.b.3.a |
| Etching stored program controlled equipment | 3B991.b.1.h |
| Ethers, as lubricating fluid | 1C006.b.1 |
| 0-ethyl-2-diisopropylaminoethyl methylphosphonite (QL) | 1C350.a.1 |
| Ethyl centralites | 1C018.a |
| Ethyl phenyl urethane | 1C018.e |
| Ethyl phosphinyl dichloride | 1C350.b.12 |
| Ethyl phosphinyl difluoride | 1C350.b.13 |
| Ethyl phosphonous dichloride | 1C350.b.12 |
| Ethyl phosphonous difluoride | 1C350.b.13 |
| Ethyl phosphonyl dichloride | 1C350.b.14 |
| Ethyl phosphonyl difluoride | 1C350.a.2 |
| Ethyl-NN-diphenylurea (ethyl unsymmetrical diphenylurea) | 1C018.d |
| Ethyldiethanolamine (139-87-7) | 1C355.b.2.a |
| Evaporators for concentrated lithium hydroxide solution | 1B233.b.4 |
| Exchange columns, liquid-liquid for lithium amalgams | 1B233.b.1 |
| Exchanges, telecommunication | 5A991.c |
| Excimer lasers | 6A005.d.4 |
| Expert systems - integration systems technology | 2E003.e |
| Expert systems software | 4D003.b |
| ●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 detonator firing sets | 1A007.a |
| Explosives or detonator detection equipment, software, or technology | 2A983, 2D983, 2E983 |
| ●Explosive detonators, electric | 1A007.b, 3A232 |
| Explosive devices and charges, commercial | 1C992.1 |
| Explosives (military) production equipment | 1B018.a |
| Explosives (military) in charges for civil applications | 1C018 |
| FADEC (Full authority digital electronic engine control) software | 9D003 |
| Fan blade (hollow) technology | 9E003 |
| Fast reacting ion-exchange resins | 0B001.f.1 |
| Fast Fourier Transform (FFT) processors | 3A001.a.12 |
| Fast switching function modules or assemblies | 3A228.c |
| Fast select packet routing or switching equipment | 5A991.c.4 |
| Fast fourier transform processors, acoustic signal processing | 6A001.a.2.c |
| Fast-exchange liquid-liquid pulse columns | 0B001.e.2 |
| Fault tolerant digital computers | 4A003.a |
| Fault tolerance FADEC software | 9D003.b |
| Feed preparation systems for Uranium Chloride production | 0B001.e.5 |
| Fermenters, biological processing | 2B352.b |
| Fertilizers containing ammonium nitrate | 1C997 |
| Fiber, equipment for the production of | 1B999 |
| Fiber and filamentary material | 1C010 |
| Fiber and filamentary material | 1C210 |

| Description | ECCN Citation |
|---|------------------|
| Fiber converting equipment, polymeric to carbon or silicon carbon | 1B001.d.1 |
| Fiber optic cable | 5A001.c.1 |
| Fiber optic gyro coil winding machines | 7B003 |
| Fiber optic magnetometers | 6A006.c |
| Fiber optic hull penetrators/connectors | 8A002.c |
| Fiber optic wave division multiplex equipment | 5A991.b.5 |
| Fiber preforms, metal coated, for fiber prepregs in 9C110 | 9C110 |
| Fiber prepregs, resin impregnated, for items in 9A110 | 9C110 |
| Fiber reinforcement, production equipment | 1B001.d |
| Fiber straining equipment | 1B001.d.1 |
| Fiber surface treatment equipment | 1B101.d |
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| Fibrous or filamentary materials | 1C010 |
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| Fibrous and filamentary materials for use in composite structures | 1C990 |
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| Fibrous or filamentary material production equipment | 1B101.c |
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| Fingerprint equipment, computers for | 4A980 |
| Fingerprinting powders, dyes, inks | 1A985 |
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| Description | ECCN Citation |
|---|--------------------|
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| Fluorination & hydrofluorination screw and fluid beds, UF6 production | 0B003.b.1 |
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| Fly-by-wire systems for missiles | 7A116 |
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| Focal plane arrays, space qualified. | 6A002.e |
| Focal-plane array performance determining equipment | 3B992.b.4.c |
| Fogging or spraying systems, specially designed for fitting to aircraft, "lighter than air vehicles," or "UAVs" | 2B352.h.1 |
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| Free electron laser magnet wiggler manufacturing or inspection equipment | 6B995.a.1 |
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| Freeze drying equipment, steam sterilizable | 2B352.e |
| Freon and chilled water cooling systems | 1B999.d |
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| Frequency hopping development technology | 5E001.b.4 |
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| Frequency changers (converters or inverters) | 0B001.c.11 |
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| Fuel element fabrication plant, for nuclear reactors | 0B005 |
| Fuel element chopping or shredding machines | 0B006.a |
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| Description | ECCN Citation |
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| Functional (truth table) testing equipment, for integrated circuits | 3B002.b |
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| Fungi, plant pathogens | 1C354.b |
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| Furnaces, Chemical Vapor Deposition (CVD), other than those controlled by 2B005.a, designed or modified for the densification of carbon-carbon composites | 2B105 |
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| Fused silica glass | 6C004.e |
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| ●Gallium nitride (GaN) “substrates”, ingots, boules, or other preforms of those materials | 3C005 |
| Gas blowers (positive displacement/centrifugal/axial flow) | 0B001.d.3 |
| Gas centrifuge rotor assembly equipment | 2B228.a |
| Gas blowers, axial flow/centrifugal/positive displacement/turbo | 0B001.b.2.a |
| Gas krytron tubes | 3A228.a |
| Gas masks | 1A004, 1A995 |
| Gas centrifuge isotope separation plant | 0B001.a.2 |
| Gas centrifuge plant auxiliary equipment | 0B002 |
| Gas centrifuge rotor balancing equipment | 2B229 |
| Gas, manufactured, synthetic or natural liquid produced or derived from Naval Petroleum Reserves | 1C984 |
| Gas centrifuge isotope separation equipment & components | 0B001.c |
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| Gas discharge & ion lasers | 6A005.a |
| Gas lasers | 6A005.a |
| Gas monitoring systems, toxic | 2B351 |
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| Gas turbine blade technology | 9E003.a |
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| Gas turbine brush seal production/test equipment | 9B003 |
| Gas turbine components, solid state joining equipment | 9B004 |
| Gas turbine engine development systems/instrumentation | 9B002 |
| Gas turbine engine development control systems or instrumentation | 9B002 |
| Gas turbine engine propulsion systems assemblies/components | 9A003 |
| Gas turbine engine technology | 9E003 |
| Gas turbine engine development and use software | 9D004 |
| Gas turbine engines, parts and components, not controlled by 9A001 or 9A101 | 9A991 |
| Gas turbine engines & assemblies/components, marine | 9A002 |
| Gas turbine test/flow modeling software | 9D004.a |
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| Gaseous diffusion housings, UF6 | 0B001.b.4 |
| Gaseous diffusion isotope separation equipment & components | 0B001.b |
| Gaseous diffusion isotope separation plant | 0B001.a.1 |
| Gaseous diffusion plant auxiliary equipment | 0B002 |
| Gaskets, made from fluoroelastomers | 1A001.c |
| Gaskets, aircraft/aerospace use | 1A001.a |
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| Gate silicon intensifier target (SIT) videcon tubes | 6A203.b.3.b |
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| Gearmaking and/or finishing machinery not controlled by 2B003 | 2B993 |
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| Generators, digital time delay | 3A999.e1 |
| Generators, high-current pulse for detonators | 3A229 |
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| Description | ECCN Citation |
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| 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 |
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| GPS equipment, other than those of 7A005 | 7A105 |
| GPS (Global positioning system) equipment/components | 7A005 |
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| Gradiometers & components, gravity | 6A107 |
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| Graphics accelerators or coprocessors | 4A994.g |
| Graphics accelerators or graphics coprocessors | 4A003.d |
| Graphics accelerator development or production technology | 4E993.a |
| Graphite, fine grain recrystallized bulk | 1C107.a |
| Graphite, bulk | 1C107.a |
| Graphite, pyrolytic or fibrous reinforced | 1C107.b |
| Graphite, nuclear-grade, not intended for use in a nuclear reactor | 1C298 |
| Graphite, nuclear-grade, intended for use in a nuclear reactor | 0C005 |
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| Gravity meters (gravimeters) & components | 6A007.b |
| Gravity meters (gravimeters) & components | 6A007.a |
| Gravity meters (gravimeters) software | 6D003.g |
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| Gravity meters (gravimeters) & components | 6A107 |
| Gravity gradiometer software | 6D003.g |
| Greases | 1C980 |
| Grenades, non-irritant smoke | 1A984 |
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| Grinding machines, gear | 2B003 |
| Grinding machines | 2B201.b |
| Grinding machines | 2B001.c |
| Guanarito (South American haemorrhagic fever) | 1C351.a.30 |
| Guanidine nitrate | 1C011.c, 1C018.m |
| Guidance sets usable in missiles | 7A117 |
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| Gun boring and turning machines | 2B018.h |
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| Gun jump screw lathes | 2B018.j |
| Gun rifling machines | 2B018.k |
| Gun, shotgun | 0A984 |
| Gun straightening presses | 2B018.l |
| Gun, stun | 0A985 |
| Gyro dynamic balance stations | 7B003, 7B101 |

| Description | ECCN Citation |
|---|------------------|
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| Gyro run-in/motor test stations | 7B003, 7B101 |
| Gyro evacuation/fill stations | 7B003, 7B101 |
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| Harnesses, complete | 9A992 |
| Head/disk assembly fabrication materials for controlled magnetic and magneto-optical hard disk drives | 4C994 |
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| Heat source materials | 1C012 |
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| Heavy water concentration equipment | 0B004.b.4 |
| Heavy water production plant, equipment & components | 0B004 |
| Helicopter system development technology | 7E004.c |
| Helicopter power transfer system technology | 9E003.d |
| Helium, enriched | 1C232 |
| Helium refrigeration units | 1B231.b.1 |
| Helium | 1C980 |
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| Helmet, military | 0A018.f |
| Helminthosporium oryzae (Cochliobolus miyabeanus) | 1C354.b.2 |
| Hemishell dimensional inspection equipment/systems | 2B006.c |
| Hendra virus (Equine morbillivirus) | 1C351.a.29 |
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| High voltage power supplies for ion sources | 0B001.j.5 |
| High power electron beam guns | 0B001.g.1 |
| High power pulse shaping networks | 3A999.c |
| High voltage capacitors | 3A999.c |
| High voltage triggers | 3A999.c |
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| High-speed pulse generators | 3A230 |
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| HIPS (Hot Isostatic Presses) | 2B004 |
| HIPS (Hot Isostatic Presses) | 2B104 |

| Description | ECCN Citation |
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| Hogcholera virus (swine fever virus) | 1C352.a.7 |
| Holding or storage vessels, critically safe & resistant to nitric acid | 0B006.e |
| Hollow cylinder centrifugal balancing machines | 2B229.b |
| Honing machines, gear | 2B003 |
| Honing machines, gear | 2B003 |
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| Horses by sea | 0A980 |
| Hot isostatic presses (HIPS) | 2B204 |
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| Hot isostatic presses (HIPS) | 2B004 |
| Hot cap sealers (semi-automatic or automatic) for ceramic microcircuit packages | 3B991.b.3.c |
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| Hot cells | 0B999 |
| Hot isostatic presses (HIPS) | 2B104 |
| Housing/recipient, centrifuge | 0B001.c.12 |
| Hovercraft | 8A001 |
| HT-2 toxin | 1C351.d.16 |
| HTPB (Hydroxy-terminated polybutadiene) propellant additive | 1C111.b.2 |
| Hull penetrators/connectors, fiber optic | 8A002.c |
| Human pathogens and "toxins" | 1C351 |
| Hybrid integrated circuits | 3A001.a Note 2 |
| Hybrid computer electronic systems/electronic assemblies | 4A001.b |
| Hybrid rocket propulsion systems | 9A009 |
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| Hydraulic fluids | 1C980 |
| Hydraulic fluids | 1C996 |
| Hydraulic forming equipment | 2B999.b |
| Hydraulic pressing, direct-acting technology | 2E003.b.1.c |
| Hydraulic stretch-forming machines and dies technology | 2E003.c |
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| Hydrocarbon oils, synthetic | 1C996 |
| Hydroclave temperature, pressure or atmosphere regulation technology | 1E103 |
| Hydrodynamic calculations/modeling, software for | 0D999.c |
| Hydrofoil vessels | 8A001.h |
| Hydrofoils | 8A002.m |
| Hydrogen | 1C980 |
| Hydrogen cyanide (74-90-8) | 1C355.b.1.c |
| Hydrogen distillation plant | 0B004.a.3 |
| Hydrogen fluoride | 1C350.d.7 |
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| Hydrogen isotope storage & purification systems | 1B231.b.2 |
| Hydrogen refrigeration units | 1B231.b.1 |
| Hydrogen sulphide-water exchange tray columns | 1B229 |
| Hydrogen sulphide-water exchange plant | 0B004.a.1 |
| Hydrogen sulphide gas compressors | 0B004.b.1.b |
| Hydrogen sulphide-water exchange equipment & components | 0B004.b.1 |
| Hydrogen-cryogenic distillation columns | 1B228 |
| Hydrophone arrays, towed acoustic | 6A001.a.2.b |
| Hydrophone arrays (towed) acoustic data processing source code | 6D003.a.2 |
| Hydrophones | 6A001.a.2.a |
| 3-Hydroxy-1-methylpiperidine | 1C350.d.8 |
| Hydroxy-terminated polybutadiene (HTPB) | 1C111.b.2 |
| Hypr (Central European tick-borne encephalitis virus) | 1C360.a.1.a.3 |
| ICP/MS (Inductively coupled plasma mass spectrometers) | 3A233.a |
| III/V and II/VI semiconductor materials purifying or processing equipment | 3B991.b.1.b |
| III/V compound substrates, gallium or indium | 3C001.c |
| Igniters | 1C018.e, 1C992.f |

| 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 |
| Image transfer equipment | 3B991.b.2 |
| Imaging cameras | 6A003.b |
| Imaging cameras with focal plane arrays of 6A002a.3 | 6A003.b.4 |
| Imaging cameras with image intensifiers of 6A002a.2.a | 6A003.b.3 |
| Imaging devices | 6A203.b.3 |
| Imaging equipment, visible & infrared | 6A002.c |
| Imaging sensors, multispectral and monospectral | 6A002.b |
| Imaging systems, underwater electronic | 8A002.f |
| Immobilization guns and projectiles | 0A985 |
| Immunotoxins and vaccines | 1C991 |
| Impregnated cathodes for electronic tubes | 3A001.b.1.c |
| Imprint lithography equipment | 3B001.f.2 |
| ●Improvised explosive devices (specially designed or modified disposal equipment , components, and accessories) | 1A006 |
| IMU platform balance fixture | 7B003, 7B101 |
| IMU platform tester | 7B003, 7B101 |
| IMU stable element handling fixture | 7B003, 7B101 |
| Incinerators designed to destroy the chemicals controlled by 1C350 | 2B350.j |
| Independent (air) power systems underwater | 8A002.j |
| Indicator heads designed/modified for use with balancing machines in 2B119.a | 2B119.b |
| Indium organo-metallic compounds | 3C003 |
| Indium III/V compounds substrates | 3C001.c |
| Induction coil magnetometers | 6A006.c |
| Induction furnace, controlled environment inert gas | 2B226 |
| Induction furnace, vacuum | 2B226 |
| Inductively coupled plasma mass spectrometers (ICP/MS) | 3A233.a |
| Industrial process control hardware/systems designed for power industries | 1B999.c |
| Industrial process control hardware/systems designed for power industries controlled by 1B999, software for | 1D999.a |
| Inert gas environment induction furnaces | 2B226 |
| ●Inertial Measurement Equipment for Azimuth, Heading, or True North determination, and specially designed components therefor | 7A003.c |
| Inertial measurement equipment | 7A003 |
| Inertial measurement unit tester (IMU module) | 7A003, 7B003, 7B101 |
| Inertial navigation, systems/equipment/components | 7A103.a |
| Inertial navigation, systems/equipment/components | 7A003 |
| Inertial navigation systems not controlled by 7A003 or 7A103 | 7A994 |
| Inertial navigation system software, source code | 7D002 |
| Inertial reference Systems (IRS) | 7A003.c |
| Inertial sensors, optical fiber | 6A002.d.3.a |
| Inflatable boats and components | 8A992.f |
| Inflation cartridges | 8A992.i |
| Influenza virus (Reconstructed replication competent forms of the 1918 pandemic influenza virus containing any portion of the coding regions of all eight gene segments) | 1C360.a.1.c |
| Information security equipment, software for the development, production or use of | 5D992 |
| Information security technology support software | 5D002.b |
| Information security equipment and components, n.e.s. | 5A992 |
| Information security software | 5D002 |
| Information security systems/equipment/devices/components | 5A002 |
| Information security technology | 5E992 |
| Information security - test, inspection, and production equipment | 5B002 |
| Infrared absorption analyzers | 0B004.b.4.d |
| Infrared detectors, industrial space qualified | 6A002.a.1 |
| Infrared sensors, industrial | 6A002.c |
| Infrared viewers (police model) | 9A980 |
| Inhibited red fuming nitric acid (IRFNA) | 1C111.a.3.e |
| Initiation systems, single or multipoint (electric) | 3A232.b |
| Injector (free electron laser photo) manufacturing or inspection equipment | 6B995.a.2 |

| Description | ECCN Citation |
|---|------------------|
| Inorganic overlay coating application technology | 2E003.f |
| Inorganic chemicals listed in Supp. No. 1 to part 754 produced or derived from the Naval Petroleum Reserves | 1C980 |
| Inorganic fibers & filamentary materials | 1C010.c |
| Input/output control units | 4A994.e |
| Inspection equipment (linear-angular for hemishells) | 2B006.c |
| Inspection equipment for composite materials | 1B001.f |
| Inspection machines (dimensional), devices or systems, other than those controlled by 2B006 | 2B206 |
| Instruction generators for machine tools - technology | 2E003.d |
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| Instrumentation systems, inertial navigation | 7A003 |
| Instrumentation cameras | 6A003.a |
| Integrated circuit assembly equipment | 3B991.b.3 |
| Integrated circuit test equipment, microwave | 3B002.c |
| Integrated circuit test equipment, capable of performing functional (truth table) testing | 3B002.b |
| Integrated circuit, masks | 3B001.g |
| Integrated circuits, compound semiconductor | 3A001.a.11 |
| Integrated circuits, custom | 3A001.a.10 |
| Integrated circuits, general purpose | 3A001.a |
| Integrated circuits, microwave | 3A001.b.2 |
| Integrated circuits, radiation hardened | 3A001.a.1 |
| Integrated circuits and assemblies manufacturing equipment and systems | 3B991.b |
| Integrated circuit and assembly testing equipment | 3B992.b.4.b |
| Integrated circuit computer-aided-design (CAD) software | 3D003 |
| Integrated circuits and assemblies inspection or testing equipment and systems | 3B992.b |
| Integrated flight instrument systems/components | 7A103.b |
| Integrated Navigation Systems, designed or modified for use in missiles | 7A103.c |
| Integrated Services Digital Network technology | 5E991 |
| Integrated system source code, avionic/mission systems | 7D003.c |
| Integration software for expert systems | 2E003.e |
| Integration technology for flight management systems | 7E104 |
| Intercepting devices, communications | 5A980 |
| Interconnect equipment (Computer) | 4A003.g |
| Interconnection equipment | 3B991.b.1.1 |
| Interferometers, velocity (VISARs) | 6A225 |
| Interlacing machines | 1B001.c |
| Intermediate amplifier equipment | 5A991.b Note a.3 |
| Interstages for missiles | 9A117 |
| Intrinsic magnetic gradiometers | 6A006.c.3 |
| Inverse synthetic aperture radar (ISAR) | 6A008.d |
| Inverters (Frequency changers or converters) | 3A225 |
| Inverters (Frequency changers or converters) | 0B001.c.11 |
| Ion beam equipment for mask making/semiconductor devices | 3B001.f.2 |
| Ion beam equipment for projection image transfer | 3B991.b.2.g |
| Ion beam sensitive resist materials | 3C002.b |
| Ion beam system, manufacturing, repairing, physical layout analysis and testing of masks or semiconductor devices | 3B992.b.6 |
| Ion collector plates, Uranium fluoride resistant | 0B001.j.2 |
| Ion implantation equipment | 3B001.b |
| Ion implantation equipment | 3B991.b.1.g |
| Ion implantation production equipment | 2B005.b |
| Ion lasers | 6A005.a |
| Ion or laser beam lithography mask or reticle fabrication equipment | 3B991.b.2.d.2 |
| Ion plating production equipment | 2B005.g |
| Ion sources, single or multiple | 0B001.j.1 |
| Ion sources, mass spectrometers (UF6 enrichment plant) | 0B002.g |
| Ion-enhanced diffusion equipment | 3B991.b.1.g |
| Ion-exchange columns | 0B001.f.2 |
| Ion-exchange isotope separation plant | 0B001.a.5 |
| Ion-exchange processing equipment | 0B006.c |
| Ion-exchange reflux systems | 0B001.f.3 |
| Ion-exchange resins, fast acting | 0B001.f.1 |

| Description | ECCN Citation |
|---|------------------|
| Ion-exchange separation process equipment & components | 0B001.f |
| ISDN development/production technology | 5E991 |
| ISDN (integrated services digital network) switching and signaling systems | 5A991.c.2 |
| Isolated live cultures - see Cultures | |
| Isolators capable of use with biological agents | 2B352.f.2 |
| Isostatic presses, hot | 2B104 |
| Isostatic presses, hot | 2B204 |
| Isostatic presses, hot | 2B004 |
| Isostatic presses, n.e.s. | 2B999.a |
| Isotope separation plant, systems, equipment & components | 0B001 |
| Isotope separation process, molecular laser | 0B001.h |
| Isotope separation process, chemical exchange | 0B001.e |
| Isotope separation process, atomic vapor laser | 0B001.g |
| Isotope separation process, electromagnetic | 0B001.j |
| Isotope separation process, plasma | 0B001.i |
| Isotope separators, electromagnetic | 1B226 |
| Isotope separation process, gas centrifuge | 0B001.c |
| Isotope separation process, Ion-exchange | 0B001.f |
| Isotope separation plant, auxiliary systems, equipment, components | 0B002 |
| Jamming equipment | 5A001.f |
| Japanese encephalitis virus | 1C351.a.7 |
| Jet engine lubricating oil | 1C980 |
| Jet vane, thrust vector control sub-systems | 9A106.c |
| Jet engines/components, pulse | 9A111 |
| Jigs and fixtures for use in the manufacture of firearms, ordnance, and other stores and appliances for land, sea, or aerial warfare | 2B018.n |
| Joule-Thomson self-regulating minicoolers | 6A002.d.2.b.6 |
| Junin virus | 1C351.a.8 |
| Kerr or Pocket cells, electro-optical shuttering | 6A203.b.3.c |
| Kick motors | 9A004 |
| Krytron tubes, gas | 3A228.a |
| Kumlinge (Central European tick-borne encephalitis virus) | 1C360.a.1.a.4 |
| Kyasanur Forest virus | 1C351.a.21 |
| Laboratories (mobile), crime science | 9A980 |
| Laminate or composite development software | 1D002 |
| Laminates & composite structures, organic metal or carbon | 1A002 |
| Laminates, rockets/propulsion systems/space vehicles | 9A110 |
| Land inertial navigation equipment | 7A003 |
| Land-based gravity meters production equipment | 6B007 |
| Laser based linear position feedback units | 2B008.a |
| Laser based measuring instruments | 2B006.b.1.c |
| Laser beam cutting machines (CNC) | 2B001.e.1.c |
| Laser beam equipment for mask making/semiconductor devices | 3B001.f.2 |
| Laser beam lithography mask or reticle fabrication equipment | 3B991.b.2.d.2 |
| Laser beam systems, for probing semiconductor devices | 3B992.b.5 |
| Laser communication technique technology | 5E001.b.2 |
| Laser diagnostic equipment | 6A005.f.2 |
| Laser diodes | 6A005.d.1 |
| Laser diodes designed for telecommunication | 5A991.b Note b.4 |
| Laser gyro mirror characterization equipment | 7B102 |
| Laser isotope plant, systems, equipment & components | 0B001.g |
| Laser isotope separation systems, equipment & components | 0B001.h |
| Laser radar altimeters | 7A106 |
| Laser radar or Light Detection & Ranging (LIDAR) equipment | 6A008.j |
| Laser radar systems | 6A108 |
| Laser ring gyro test equipment | 7B002 |
| Laser, technology | 6E003.e |
| Laser welding machines | 2B999.c |
| Lasers | 6A005 |
| Lasers | 6A205 |
| Lasers | 6A995 |
| Lasers for direct write on wafers | 3B991.b.2.h |

| Description | ECCN Citation |
|---|------------------|
| Lasers or laser systems, uranium isotope separation | 0B001.h.6 |
| Lasers or laser systems, uranium isotope separation | 0B001.g.5 |
| Lassa fever virus | 1C351.a.9 |
| Lathes (CNC) | 2B001.a |
| Launch support equipment | 9A115 |
| Launch vehicle components/structures | 9A010 |
| Leg irons | 0A982 |
| Lenses for radiation hardened TV cameras | 6A203.c |
| Liberobacter africanus (a.k.a. Candidatus Liberobacter africanus) | 1C360.c.1.a |
| Liberobacter asiaticus (a.k.a. Candidatus Liberobacter asiaticus) | 1C360.c.1.b |
| Lidar equipment (Laser radar) | 6A008.j |
| Life jackets | 8A992.i |
| Lift fans, for surface effect vessels | 8A002.1 |
| Light gas guns(Multistage) systems | 2B232 |
| Light systems, Stroboscopic | 8A992.c |
| Light systems, underwater | 8A002.g |
| Light systems, underwater | 8A002.d.2 |
| Light-weight reduction gearing, marine transmissions | 8A002.o.1.d |
| Lights, underwater | 8A992.j |
| Lights, search | 0A018.a |
| Lightweight composite or foam mirror structures | 6A004.a.3 |
| Lightweight monolithic mirrors | 6A004.a.2 |
| Lightweight turbofan/turbojet engines | 9A101 |
| Line terminating equipment | 5A991.b Note a.2 |
| Linear voltage displacement transformer (LVDT) based instruments | 2B006.b.1.b.1 |
| Linear position feedback units or sensors | 2B008.a |
| Linear measuring equipment/instruments | 2B006.b.1 |
| Linear focal plane arrays | 6A002.a.3 |
| Linear-angular inspection equipment for hemishells | 2B006.c |
| Liquid oxidizers, various nitrous oxides | 1C111.a.3 |
| Liquid or water jet cutting machines (CNC) | 2B001.e.1.a |
| Liquid Uranium handling systems (cooled crucibles) | 0B001.i.5 |
| Liquid lasers | 6A005.c |
| Liquid propellant tanks | 9A103 |
| Liquid rocket propulsion systems & components | 9A106 |
| Liquid rocket propulsion systems & components | 9A006 |
| Liquid rocket propulsion systems | 9A005 |
| Liquid propellant control systems | 9A106.d |
| Liquid propellant rocket engines | 9A105 |
| Liquid-liquid exchange columns, for lithium amalgams | 1B233.b.1 |
| Lithium metal, alloys, compounds, mixtures, products or devices | 1C233 |
| Lithium isotope separation facilities, plant and equipment | 1B233 |
| Lithium amalgam electrolysis cells | 1B233.b.3 |
| Lithium amalgam pumps | 1B233.b.2 |
| Lithograph templates | 3B001.i |
| Lithography equipment, imprint | 3B001.f.2 |
| Lithography equipment, mask making for semiconductor wafer-processing | 3B001.f |
| Lithography mask or reticle fabrication equipment | 3B991.b.2.d.2 |
| Lithography software | 3D003 |
| Location & object detection systems, acoustic | 6A001.a.1.b |
| Logic arrays, field programmable (FPLA) | 3A001.a.8 |
| Logic processors and assemblies | 4A003 |
| Louping ill virus | 1C351.a.22 |
| Lubricating materials | 1C006.b |
| Lubricating oil | 1C980 |
| Lumpy skin disease virus | 1C352..a.16 |
| LVDT (Linear voltage displacement transformer) based instruments | 2B006.b.1.b.1 |
| Lymphocytic choriomeningitis virus | 1C351.a.10 |
| Lyssa virus | 1C352.a.8 |
| Machetes | 0A988 |
| Machine tools, E-beam | 2B001.e.1.b |
| Machine tools, laser | 2B001.e.1.c |
| Machine tools, numerically controlled | 2B001 |

| Description | ECCN Citation |
|---|---------------|
| Machine tools, numerically controlled | 2B201 |
| Machine tools, numerically controlled and using a Magnetorheological finishing (MRF) process. | 2B002 |
| Machine tools, numerically controlled, optical finishing | 2B002 |
| Machine tools, water/other liquid jet | 2B001.e.1.a |
| Machine tool assemblies, units or inserts | 2B998 |
| Machine tool components and assemblies for equipment controlled by 2B006 & 2B007 | 2B008 |
| Machine tool cutting tools | 2B008 |
| Machine tools for generating optical quality surfaces | 2B992 |
| Machine tools for grinding (CNC) | 2B001.c |
| Machine tools for grinding (CNC) | 2B201.b |
| Machines for milling (CNC) | 2B001.b |
| Machines for milling (CNC) | 2B201.a |
| Machine tools for turning, grinding, and milling | 2B991.d.1 |
| Machines for turning (CNC) | 2B001.a |
| Machine tool instruction generators - development technology | 2E003.d |
| Machine tool rotary position feedback units | 2B008.b |
| Machine tool spindles | 2B008.c |
| Machining centers (CNC) | 2B201 |
| Machining centers (CNC) | 2B001 |
| Machupo virus | 1C351.a.10 |
| Magnaporthe grisea (pyricularia grisea/pyricularia oryzae) | 1C354.b.6 |
| Magnesium (high purity) | 1C228 |
| Magnesium alloy, powder or particulate form | 1C002.b.1.e |
| Magnesium alloys | 1C002.a.2.e |
| Magnesium, metal and alloys of | 1C011.a |
| Magnesium oxide (MgO) made or coated crucibles | 2A225.a.6 |
| Magnesium metal particulate | 1C111.a.2.d |
| Magnet power supplies, high power (direct current) | 0B001.j.6 |
| Magnetic alloy strips | 1C003.c |
| Magnetic and optical storage development and production equipment | 4B994 |
| Magnetic anomaly detection software | 6D003.f.2 |
| Magnetic bearings (suspension) | 2A001.c |
| Magnetic bearings (suspension) | 0B001.c.4 |
| Magnetic coating equipment | 4B994.a |
| Magnetic compensation systems for magnetic and underwater electric field sensors | 6A006.d |
| Magnetic compensation systems software | 6D003.f.1 |
| Magnetic confinement CVD equipment | 3B001.d.1.a |
| Magnetic confinement plasma dry etching equipment | 3B001.c.1.a |
| Magnetic and Electric Field Sensors "software" | 6D003.f |
| Magnetic gradiometers | 6A006.c |
| Magnetic gradiometers, intrinsic | 6A006.c.2 |
| Magnetic hard disk drive development or production technology | 4E993.c |
| Magnetic media (rigid) monitoring, grading, exercising or testing equipment | 4B994.b |
| Magnetic metals | 1C003 |
| Magnetic pole pieces | 0B001.j.4 |
| Magnetically enhanced, sputtering equipment | 3B991.b.1.f |
| Magnetometers | 6A006 |
| Magnetometers not controlled by 6A006 | 6A996.a |
| Magnetometer systems | 6A006 |
| Magnetostrictive alloys | 1C003.b |
| Malignant catarrhal fever virus | 1C360.b.1.d |
| Mandrels for rotor assembly, bellows forming | 2B228.a |
| Mandrels, bellows-forming | 2B228.c |
| Mandrels (precision) for filament winding machines | 1B201 |
| Manganin gauges, pressure | 6A226.a |
| Manifolds, vacuum | 0B002.f.1 |
| Manipulators, remote | 2B225 |
| Manipulators, for submersibles | 8A002.i |
| Manned, tethered submersible vehicles | 8A001.a |
| Manned, untethered submersible vehicles | 8A001.b |
| Manufactured gas and synthetic natural gas produced or derived from Naval Petroleum Reserves | 1C984 |
| Maraging steel | 1C116 |
| Maraging steel. | 1C216 |

| Description | ECCN Citation |
|---|-------------------|
| Marburg virus | 1C351.a.12 |
| Marine acoustic systems | 6A001.a |
| Marine boiler | 8A018.b.4 |
| Marine engines and parts (both inboard and outboard, n.e.s.) | 8A992.g |
| Marine gas turbine engines | 9A002 |
| Marine, terrestrial acoustic equipment | 6A991 |
| Marx generators | 3A999.c |
| Mask, gas | 1A004, 1A995 |
| Mask or reticle altering holders or equipment | 3B991.b.2.d.3 |
| Mask or reticle fabrication equipment | 3B991.b.2.d |
| Mask or reticles or pellicles, stored program controlled inspection equipment | 3B991.b.2.e |
| Mask software | 3D003 |
| Masks | 8A992.i |
| Masks, integrated circuits of 3A001 | 3B001.g |
| Masks, mask substrates, mask-making equipment | 3B991.b.2 |
| Mass spectrometers & ion sources (UF6 enrichment plant) | 0B002.g |
| Mass spectrometers & ion sources (UF6 enrichment plant) | 3A233 |
| Mass spectrometers, n.e.s | 3A999.b |
| Materials for reduced electromagnetic reflectivity | 1C101 |
| Matrix, organic | 1A002.b |
| MCT (HgCdTe) crystals & epitaxial wafers | 6C002.b |
| Measurement equipment, radiation | 1A999.a |
| Measurement equipment, underwater velocity | 6A001.b |
| Measuring instruments or systems, dimensional | 2B006 |
| Measuring and analysis equipment | 3B992.b.2 |
| Mechanical cameras, framing | 6A003.a.1-3 |
| Media access units | 5A991.b Note a.12 |
| Melting furnaces | 2B227.b |
| Menangle virus | 1C360.b.1.e |
| Mercury amalgam pumps | 1B233.b.2 |
| Mercury cadmium telluride crystals & epitaxial wafers | 6C002.b |
| Metal alloy powders or particulate form | 1C002.b |
| Metal alloy particulate | 1C111.a.2 |
| Metal alloys | 1C002.a |
| Metal alloys, aluminum or titanium | 1C202 |
| Metal alloys, beryllium | 1C230 |
| Metal alloys, hafnium | 1C231 |
| Metal alloys, lithium | 1C233 |
| Metal alloys, powder and material production systems and components | 1B002 |
| Metal alloys, tungsten | 1C226 |
| Metal alloys, tungsten or molybdenum | 1C117 |
| Metal alloys, zirconium | 1C234 |
| Metal alloys, zirconium, beryllium, boron, magnesium | 1C111.a.2.e |
| Metal coated fiber preforms | 9A110 |
| Metal coated fiber preforms for fiber prepregs in 9C110 | 9C110 |
| Metal or carbon matrix | 1A002.b |
| Metal organic chemical vapor deposition (MOCVD) reactors | 3B001.a.2 |
| Metal-organic compounds, aluminum/gallium/indium | 3C003 |
| Metal particulate | 1C011 |
| Metal powder production equipment | 1B102 |
| Metal vapor lasers | 6A005.b |
| Metal working process tools, die & fixture technology | 2E003.b.1 |
| Metal working manufacturing processes technology | 2E003.b |
| Metallo-organic or polymeric materials | 1C007.e |
| Metallurgical melting & casting furnaces | 2B227 |
| Metals or carbon coated fibers | 1C010.e |
| Metals with high initial relative (magnetic) permeability | 1C003.a |
| Methyl centralites | 1C018.a |
| Methyldiethanolamine (105-59-9) | 1C355.b.2.b |
| Methyl phosphinyl dichloride | 1C350.b.15 |
| Methyl phosphinyl difluoride | 1C350.b.16 |
| Methyl phosphonous dichloride | 1C350.b.15 |
| Methyl phosphonous difluoride | 1C350.b.16 |

| Description | ECCN Citation |
|--|----------------|
| Methyl phosphonyl dichloride | 1C350.b.17 |
| Methyl phosphonyl difluoride (DF) | 1C350.a.3 |
| Methyl benzilate | 1C350.d.9 |
| Microbiological disposal technology | 1E351 |
| Microchannel plates, image intensifier tubes | 6A002.a.2 |
| Microcomputer microcircuits | 3A001.a.3 |
| Microcontroller microcircuits | 3A001.a.3 |
| Microcyclus ulei (syn. Dothidella ulei) | 1C354b.3 |
| Microcystins (Cyanginosin) | 1C351d.4 |
| Microfluorination ion sources | 3A233.f |
| Micromachined Angular Rate Sensors | 7A994 |
| Microorganisms, genetically modified | 1C353 |
| Microprocessor microcircuits | 3A001.a.3 |
| Microprocessor microcircuits above 530 MTOPS development/production technology | 3E002.g |
| Microwave amplifiers, solid state | 3A001.b.4 |
| Microwave frequency extenders, mixers/converters | 3A001.b.7 |
| Microwave integrated circuit test equipment | 3B002.c |
| Microwave integrated circuits | 3A001.b.2 |
| Microwave modules | 3A001.b.2 |
| Microwave power modules (MPM) | 3A001.b.9 |
| Microwave power sources and antennae | 0B001.i.3 |
| Microwave transistors (discrete) | 3A001.b.3 |
| Microwave test receivers | 3A002.f |
| Microwave wave components | 3A001.b |
| MIG welders | 2B999.d |
| Military explosive production equipment | 1B018.a |
| Military helmet | 0A018 |
| Military vehicles | 9A018 |
| Millimeter wave components | 3A001.b |
| Milling machines, (CNC) with two or more coordinated axes | 2B001.b |
| Milling machines, (CNC) with two or more coordinated axes | 2B201.a |
| Milling machines (CNC) | 2B991.d.1 |
| Mills, fluid energy | 1B119 |
| Mining equipment | 2B999.h |
| Mirror assemblies/segments, space assembly | 6A004.c.3 |
| Mirror characterization equipment, reflectometers | 7B102.b |
| Mirror control equipment, phased array/segment | 6A004.d.4 |
| Mirror structures, lightweight foam or composite type | 6A004.a.3 |
| Mirrors, actively cooled or heat pipe cooled | 6A005.e.1 |
| Mirrors, beam steering | 6A004.a.4 |
| Mirrors, optical | 6A005.e.2 |
| Mirrors, optical | 6A004.a |
| Missile engine combustion regulation devices | 9A118 |
| Missile (usable) guidance sets | 7A117 |
| Missile telemetry | 5A101 |
| Missile modeling, simulation & integration software | 9D103 |
| Mixed Oxides of Nitrogen (MON) | 1C111.a.3.d |
| Mixers, batch | 1B117 |
| Mixers, continuous | 1B118 |
| Mixers, frequency extenders | 3A001.b.7 |
| Mobile communications equipment, assemblies and components | 5A991.g |
| Modeccin toxin | 1C351.d.17 |
| Modeling/simulation of guidance sets, software | 7D103 |
| Modems | 5A991.b.2 |
| Modular time interval meter | 3A999.e.2 |
| Modules, microwave | 3A001.b.2 |
| Modules/assemblies, fast switching function | 3A228.c |
| Molecular beam epitaxial growth equipment using gas sources | 3B001.a.3 |
| Molecular beam epitaxial growth equipment | 3B991.b.1.e |
| Molecular beam mass spectrometers | 3A233.e |
| Molecular laser isotopic separation plant | 0B001.a.7 |
| Molecular pumps | 0B001.c.9 |
| Molybdenum alloy fibers | 1C010.c Note 2 |

| Description | ECCN Citation |
|--|------------------|
| Molybdenum & tungsten metals & alloys | 1C117 |
| Monel equipment including valves, piping, tanks and vessels | 2B999.f |
| Monel plate | 1C999.c |
| Monitoring equipment, radiation | 1A999.a |
| Monitoring systems, toxic gas | 2B351 |
| Monitors or color displays | 4A994.h |
| Monkey pox virus | 1C351.a.13 |
| Monolithic integrated circuits | 3A001.a Note 2 |
| Monolithic integrated circuit repair or trimming laser equipment | 3B991.b.1.m |
| Monospectral imaging sensors | 6A002.b |
| Motion control boards for machine tools | 2B991.b |
| Motion simulators or rate tables | 2B120 |
| Motor stators | 0B001.c.10 |
| Multi-chamber central wafer handling systems | 3B001.e |
| Multi-channel interval meter | 3A999.e2 |
| Multi-data-stream processing equipment, development or production technology for | 4E993.b |
| Multi-data-stream processing software development tools and compilers, in source code | 4D003.a |
| Multi-element detector arrays | 6A002.a.3 |
| Multi-layer hetero-epitaxial material substrates & wafers | 3C001 |
| Multi-layer masks (with phase shift layer), for integrated circuits | 3B001.h |
| Multichip integrated circuits | 3A001.a Note 2 |
| Multilevel security capability, equipment | 5A002.a.6 |
| Multimode optical fiber & cables, high tensile strength | 5A001.c.1 |
| Multiple-seal pumps | 2B350.i |
| Multiplex equipment | 5A991.b Note a.7 |
| Multipoint initiation systems | 3A232.b |
| 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.23 |
| Mycoplasma capricolum, except subspecies capripneumoniae | 1C360.b.2.a |
| Mycoplasma capricolum subspecies capripneumoniae ("strain F38") | 1C352.b.1.b |
| Mycoplasma mycoides capri | 1C360.b.2.b |
| Mycoplasma mycoides subspecies mycoides SC (small colony) (a.k.a. contagious bovine pleuropneumonia) | 1C352.b.1.a |
| N,N-diisopropyl-beta-aminoethane thiol | 1C350.b.6 |
| N,N-diisopropyl-(beta)-amino ethanol | 1C350.b.8 |
| N,N-diisopropyl-beta-aminoethyl chloride | 1C350.b.9 |
| N,N-diisopropyl-(beta)-aminoethyl chloride hydrochloride | 1C350.b.7 |
| NBC (Nuclear, biological and chemical) detection system software | 1D003 |
| NBC (Nuclear, biological and chemical) detection system libraries or parametric technical databases | 1E002.g |
| NN-Diphenylurea (unsymmetrical diphenylurea) | 1C018.b |
| Nanocrystalline alloy strips | 1C003.c |
| Natural uranium | 0C001 |
| Natural gas liquids and derivatives produced or derived from Naval Petroleum Reserves | 1C983 |
| Navigation, airborne communication and other avionics equipment technology | 7E994 |
| Navigation, airborne communication and other avionics software n.e.s. | 7D994 |
| Navigation direction finding equipment | 7A994 |
| Navigation systems, equipment & components, inertial | 7A103 |
| Navigation systems, equipment & components, inertial | 7A003 |
| Navigation systems, underwater sonar | 7A008 |
| NDT (non-destructive test) inspection equipment (3D) | 1B001.f |
| NDT (non-destructive test) inspection equipment | 9B007 |
| Neodymium lasers | 6A005.d.6 |
| Neodymium lasers | 6A205.f |
| Neptunium-237 | 1C012.b |
| Network analyzers | 3A002.e |
| Network access controllers contained in computer equipment | 4A994.i |
| Network access controllers contained in telecommunications | 5A991.b.4.a |
| Neural computers/assemblies/components | 4A004.b |
| Neural network integrated circuits | 3A001.a.9 |
| Neutron generator systems & tubes | 3A231 |
| Neutronic calculations/modeling, software for | 0D999.a |
| Newcastle disease virus | 1C352.a.9 |

| Description | ECCN Citation |
|---|---|
| Nickel alloy | 1C002.a.2.a |
| Nickel alloy/powder or particulate form | 1C002.b.1.a |
| Nickel aluminides | 1C002.a.1.a |
| Nickel based alloys | 1C002.a.1 |
| Nickel electroplating equipment | 2B999.i |
| Nickel metal (made from powder) | 1C240 |
| Nickel metal (made from powder metals/alloys/powders) | 0C006.b |
| Nickel metal powders | 0C006.a |
| Nickel powder | 1C240 |
| Nickel powder or porous nickel metal | 0C006 |
| Night vision devices and technology | 6A002.a.2, 6A003.b.3, 6A003.b.4, 6A202, 6A203, 6E002, 6E101 |
| Niobium alloys | 1C002.a.2.b |
| Niobium alloy/powder or particulate form | 1C002.b.1.b |
| Nipah virus | 1C351.a.32 |
| Nitrate-based | Advisory Note (a) 1C018 |
| 3-Nitroaza-1,5 pentane diisocyanate | 1C018.l |
| Nitric acid | 1C999.e |
| Nitrided niobium-titanium-tungsten alloy crucibles | 2A225.a.7 |
| 2-Nitrodiphenylamine | 1C111.c.3, 1C018.h |
| Nitrogen dioxide (dinitrogen tetroxide) | 1C111.a.3.b |
| Nitroglycerin (in medicinal form) | 1C992.l |
| Nitroguanidine | 1C011.d |
| P-Nitromethylaniline | 1C018.i |
| N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethyl-2-chlorides and corresponding protonated salts | 1C355.a.2.d |
| N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-ols and corresponding protonated salts | 1C355.a.2.e |
| N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-thiols and corresponding protonated salts | 1C355.a.2.f |
| N,N-Dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidic dihalides | 1C355.a.2.b |
| Noise reduction equipment for vessels, acoustic mounts | 8A002.o.3.a |
| Noise cancellation systems for vessels, active | 8A002.o.3.b |
| Noise reduction systems for vessels, active | 8A002.o.3.b |
| Non-destructive inspection equipment | 1B001.f |
| Non-destructive test inspection equipment, rocket motor | 9B007 |
| Non-fluorinated polymeric substances | 1C008 |
| Non-fluorinated polymeric manufactures | 1A003 |
| Non-irritant smoke flares, canisters, grenades and charges | 1A984 |
| Non-linear optical materials | 6C004.c |
| Non-planar absorbers | 1C001.a Note 1.b |
| Non-tunable continuous wave (CW) lasers | 6A005.a & 6A995.e |
| Non-tunable pulsed lasers | 6A005.b & 6A995.d |
| Non-tunable solid state lasers | 6A005.a and b & 6A995.f |
| Nozzles, aerodynamic isotope separation | 0B001.d.1 |
| Nozzles, for producing pyrolytically derived materials | 1B116 |
| Nozzles, rocket motor (liquid) | 9A106.b |
| Nuclear heat source materials | 1C012 |
| Nuclear material handling and processing equipment | 2A291 |
| Nuclear materials, facilities, and equipment software | 0D001 |
| Nuclear plant commodities, parts and accessories | 2A291.d |
| Nuclear reactor, eddy current test equipment | 2A291.d |
| Nuclear reactor equipment | 2A291 |
| Nuclear reactor, simulators | 2A291.b |
| Nuclear reactor, ultrasonic test equipment | 2A291.d |
| Nuclear reactors fuel element fabrication plant/equipment | 0B005 |
| Nuclear reactors fuel element (irradiated) reprocessing plant/equipment | 0B006 |
| Nuclear reactors, civil | 0A001 |
| Nuclear reactors & reactor components | 0A001 |
| Nuclear technology for the development, production or use of nuclear materials, facilities, and equipment | 0E001 |
| Nuclear-grade graphite | 0C005 |
| Numerical control for machine tools - software | 2D002 |
| Numerical control for machine tools - technology | 2E003.d |
| Numerical control units for machine tools and numerically controlled machine tools, n.e.s | 2B991 |
| Numerically controlled machine tools | 2B290 |
| Numerically controlled machine tools that can be equipped with electronic devices for simultaneous contouring control | 2B991.c |

| Description | ECCN Citation |
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| Ocean salvage systems | 8A001.e |
| Off highway wheel tractors | 9A990 |
| Oil well cartridges | 1C018.f, 1C992.g |
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| Oils, distillate fuel | 1C980 |
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| On-highway tractors | 9A990 |
| Operating systems for real time processing equipment, software | 4D993.c |
| Operating system software, development tools & compilers | 4D003.a |
| Operating system software, multi-data-stream processing equipment | 4D003.a |
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| Optical components, space-qualified | 6A004.c |
| Optical components for lasers | 6A005.e |
| Optical components for lasers | 6A004.b |
| Optical computers | 4A004.c |
| Optical control equipment | 6A004.d |
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| Optical detectors & sensors | 6A002 |
| Optical element inspection or testing equipment and components | 3B992.a |
| Optical element manufacturing equipment and components | 3B991.a |
| Optical elements, aspheric | 6A004.e |
| Optical equipment | 6A005.f |
| Optical equipment | 6B004 |
| Optical equipment other than optical surface scattering measurement equipment | 6B004.b |
| Optical fabrication technologies | 6E003.d.2 |
| Optical fabrication technologies | 6E993.a |
| Optical fiber characterization equipment | 5A991.b Note b.3 |
| Optical fiber couplers or connectors for underwater use | 8A002.c |
| Optical fiber & accessories, communications | 5A001.c.1 |
| Optical fiber & accessories, underwater use | 5A001.c.2 |
| Optical fiber preforms | 6C994.b |
| Optical fiber preforms | 5C991 |
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| Optical fiber sensing elements, hydrophones | 6A001.a.2.a.2 |
| Optical filters | 6A994.a |
| Optical filters technology | 6E993.b |
| Optical finishing processes | 2B002.d |
| Optical (Infrared) tracking (range) radars | 6A108.b.2 |
| Optical integrated circuits | 3A001.a.6 |
| Optical materials | 6C994 |
| Optical materials, with non-linear characteristics | 6C004.b.3 |
| Optical mirrors (reflectors) | 6A004.a |
| Optical mirrors (reflectors) | 6A005.e.2 |
| Optical sensing fibers not controlled by 6A002 | 6C992 |
| Optical Sensors | 6A992 |
| Optical sensor cryocoolers | 6A002.d.1 |
| Optical sensors - flight control systems - technology | 7E004 |
| Optical sensors, optical fiber | 6A002.d.3 |
| Optical sensor materials | 6C002 |
| Optical sighting devices for firearms | 0A987 |
| Optical surface coating/treatment technology | 6E003.d.1 |
| Optical switching equipment | 5A991.c.10.c |
| Optical switching equipment, equipment for the development of equipment employing | 5B001.b.3 |
| Optical switching equipment, software for the development of equipment employing | 5D001.d.3 |
| Optical switching equipment, technology for the development of equipment employing | 5E001.c.3 |
| Optical-electro shutters, Kerr or Pockel cells | 6A203.b.3.c |
| Optics | 6A994 |
| Optics, (optical components) | 6A004 |
| Optimization of rocket systems trajectory technology | 7E104 |
| Organic fibers & filamentary materials | 1C010.a |
| Organic matrix | 1A002.a |

| Description | ECCN Citation |
|---|---------------|
| Organo-metallic compounds | 3C003 |
| Oropouche virus | 1C351.a.25 |
| Oscilloscopes (analog and digital) | 3A292 |
| Oxide matrix reinforced materials | 1C007.f |
| Oxygen Iodine (O ₂ -I) laser | 6A005.d.5.c.1 |
| PABXs (Private Automatic Branch exchanges) | 5A991.c |
| Packet switching equipment | 5A991.c.10 |
| Parachutes, military | 9A018.e |
| Paraffin wax | 1C980 |
| Parametric technical databases | 1E002.g |
| Particle accelerators | 1B999.b |
| Particle measuring systems employing lasers | 3B992.b.7 |
| Passive coherent location systems or equipment | 5A001.g |
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| Passive acoustic systems | 6A001.a.1.d |
| Pathogens, genetically modified microorganisms | 1C353.a |
| Pathogens, animal | 1C352 |
| Pathogens, human | 1C351 |
| Pathogens, plant | 1C354 |
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| PBAA (Polybutadiene-acrylic acid) | 1C111.b.3 |
| PBAN (Polybutadiene-acrylic acid-acrylonitrile) | 1C111.b.4 |
| PEEK (Polyether ether ketone) | 1C998 |
| PEK (Polyether ketone) | 1C998 |
| PEKEKK (Polyether ketone ether ketone ketone) | 1C998 |
| PEKK (Polyether ketone ketone) | 1C998 |
| 1,1,3,3,3-Pentafluoro-2-(trifluoromethyl)-1-propene (382-21-8) (PFIB) | 1C355.a.1.a |
| Perfluoroaliphatic-ethers, monomeric or polymeric | 1C006.d.1.a |
| Perfluoroalkanes | 1C006.d.1.d |
| Perfluorocycloalkanes | 1C006.d.1.c |
| Perfluoropolyalkylether-triazines, monomeric or polymeric | 1C006.d.1.a |
| Performance improvement software, navigation systems | 7D003.a |
| Performance improvement source code, navigation systems | 7D003.b |
| Peronosclerospora philippinensis | 1C360.c.2.a |
| Peste des petits ruminants virus | 1C352.a.10 |
| Petroleum products produced or derived from Naval Petroleum Reserves | 1C982 |
| Petroleum, crude or reconstituted | 1C981 |
| PFIB (1,1,3,3,3-Pentafluoro-2-(trifluoromethyl)-1-propene (382-21-8)) | 1C355.a.1.a |
| Phased array antennae (in radar) | 6A008.e |
| Phased array/segment mirror control equipment | 6A004.d.4 |
| Phased array antennae (in radar) | 5A001.d |
| Phased array antennae | 5A991.f |
| Phenylene, as lubricating fluids | 1C006.b.1 |
| Phosgene: Carbonyl dichloride (75-44-5) | 1C355.b.1.a |
| Phosphate glass | 6C004.e |
| Phosphor bronze or copper mesh packings | 1A226 |
| Phosphor image plates, storage | 1A999.b |
| Phosphorus hydrides | 3C004 |
| Phosphorus oxychloride | 1C350.c.3 |
| Phosphorus pentachloride | 1C350.c.4 |
| Phosphorus pentasulphide | 1C350.d.10 |
| Phosphorus trichloride | 1C350.c.5 |
| Photo-enhanced CVD equipment | 3B991.b.1.i |
| Photo-enhanced diffusion equipment | 3B991.b.1.g |
| Photo-optical step and repeat cameras | 3B991.b.2.d.1 |
| Photocathodes | 6A002.a.2.b |
| Photographic still cameras, underwater | 8A001.e |
| Photographic still cameras, for underwater use | 8A992.b |
| Photomultiplier tubes | 6A202 |
| Photovoltaic arrays, space qualified or radiation hardened | 3A001.e.1.c |
| Physics-based simulation "software" specially designed for the "development" of lithographic, etching or deposition processes | 3D003 |
| Piezoelectric polymer & copolymer, made from vinylidene fluoride materials | 1A001.b |

| Description | ECCN Citation |
|--|--------------------|
| Piezoelectric sensing elements, hydrophones | 6A001.a.2.a.2.b |
| Pinacolone | 1C350.d.11 |
| Pinacolyl alcohol | 1C350.b.18 |
| Piping, austenitic stainless steel | 2B999.n |
| Piping, fittings and valves of or lined with stainless steel, copper-nickel alloy or other alloy steel | 2A292 |
| Piping, monel | 2B999.f |
| Piping, multi-walled incorporating a leak detection port | 2B350.h |
| Piping, stainless steel | 2B999.g |
| Piping, vacuum | 2B999.k |
| Pitch-impregnated fibers | 1C010.e |
| Planar absorbers | 1C001.a Note 1.c&d |
| Plant pathogens, bacteria or fungi | 1C354 |
| PLAs (Programmable Logic Arrays) | 3A001.a.8 |
| Plasma atomization & melting furnaces | 2B227.b |
| Plasma dry etching equipment | 3B001.c |
| Plasma enhanced CVD equipment | 3B001.d |
| Plasma-enhanced CVD (PECVD) equipment | 3B991.b.1.i |
| Plasma enhanced or plasma assisted CVD production equipment | 2B005.a.1.c |
| Plasma isotope separation plant | 0B001.a.8 |
| Plasma separation process equipment & components | 0B001.i |
| Plasma spraying production equipment, with controlled atmosphere | 2B005.d |
| Platforms, complete | 9A992 |
| Platinized catalysts | 1A225 |
| Plutonium metal production systems | 0B006.g |
| Plutonium nitrate conversion systems | 0B006.f |
| Plutonium-238 | 1C012.a |
| Pocket cell electro-optical shuttering | 6A203.b.3.c |
| Police helmets and shields | 0A979 |
| Polyarylene ketones | 1C008.d |
| Polybiphenylenethersulphone | 1C008.f |
| Polybromotetrafluoroethylene | 1C006.c.3 |
| Polybutadiene-acrylic acid (PBAA) | 1C111.b.3 |
| Polybutadiene-acrylic acid-acrylonitrile (PBAN) | 1C111.b.4 |
| Polycarbosilazanes | 1C007.e.3 |
| Polychlorotrifluoroethylene | 1C006.c.2 |
| Polycrystalline alumina fibers | 1C010.c Note 1 |
| Polycrystalline silicon and materials production equipment | 3B991.b.1.a |
| Polydiorganosilanes, precursor for silicon carbide | 1C007.e.1 |
| Polyether ketone ether ketone ketone (PEKEKK) | 1C998 |
| Polyether ketone (PEK) | 1C998 |
| Polyether ether ketone (PEEK) | 1C998 |
| Polyether ketone ketone (PEKK) | 1C998 |
| Polyetherimides, fibrous & filamentary materials composed of | 1C010.d.1.a |
| Polygraphs | 3A981 |
| Polymeric or metallo-organic materials | 1C007.e |
| Polymeric substances | 1C111.b |
| Polymeric substances, non-fluorinated | 1C008 |
| Polymeric substances, non-fluorinated | 1C998 |
| Polysilazanes, precursor for silicon nitride | 1C007.e.2 |
| Polythiophene | 1C001.c.3 |
| Porcine enterovirus type 9 | 1C352.a.11 |
| Porcine herpes virus (Aujeszky' disease) | 1C352.a.6 |
| Porous nickel metal | 1C240 |
| Porous nickel metal | 0C006.b |
| Portable electric generator development or production software | 2D994 |
| Portable electric generators | 2A994 |
| Positioning equipment/components, global | 7A005 |
| Positioning equipment | 7A105 |
| Positioning systems, acoustic | 6A001.a.1.d |
| Positioning tables or rate tables | 2B120 |
| Positioning tables or rate tables | 2B121 |
| Positive resists for semiconductor lithography | 3C002.a |
| Post-flight data processing software | 6D103 |

| Description | ECCN Citation |
|--|----------------------|
| Potassium cyanide | 1C350.d.12 |
| Potassium bifluoride | 1C350.d.14 |
| Potassium fluoride | 1C350.d.13 |
| Potassium hydrogen fluoride see potassium bifluoride | 1C350.d.14 |
| Potassium titanyl arsenate (KTA) | 6C004.b.1 |
| Powassan virus | 1C351.a.26 |
| Powder metallurgy rotor component manufacturing equipment | 9B009 |
| Power generating equipment, nuclear reactor | 0A002 |
| Power supplies, high current/voltage/power (direct current) | 0B001.j.5 |
| Power supplies, direct current high power (dc) | 3A226 |
| Power supplies, direct current high-voltage | 3A227 |
| Power supplies, direct current (high current/voltage/power) | 0B001.j.6 |
| Power systems, air independent, for underwater use | 8A002.j |
| Power transmission shaft systems, marine | 8A002.o.1 |
| Power transmission shaft systems, marine | 8A002.o.1.e |
| Precision mandrels for filament winding machines | 1B201 |
| Precision rotor forming mandrels | 2B209.b |
| Precision tracking systems, usable for missiles | 6A108.b |
| Precursors for toxic chemical agents | 1C350 |
| Preform production equipment | 1B101.d |
| Preforms, metal coated, for fiber prepregs in 9C110 | 9C110 |
| Preforms production equipment | 1B001 |
| Preforms production equipment, n.e.s. | 1B999.e |
| Preforms production equipment controlled by 1B999, software for | 1D999.b |
| Preforms, fibrous or filamentary materials | 1C010.e |
| Preforms, glass for optical fibers | 5C991 |
| Preforms for space vehicles (metal coated fiber) | 9A110 |
| Preforms, fibrous or filamentary materials | 9A110 |
| Preforms, metal coated fiber (for propulsion systems) | 9A110 |
| Prepreg production equipment | 1B001.e |
| Prepreg production equipment | 1B101.d |
| Prepregs production equipment, n.e.s. | 1B999.e |
| Prepregs production equipment controlled by 1B999, software for. | 1D999.b |
| Prepregs, fibrous or filamentary materials | 1C010.e |
| Prepregs, resin impregnated fiber, for 9A110 items | 9C110 |
| Prepregs production equipment | 1B001 |
| Prepregs, when impregnated with phenolic or epoxy resins | 1C010.e Note 2 |
| Prepregs, fibrous or filamentary materials | 9A110 |
| Presses, hot isostatic | 2B204 |
| Presses, hot isostatic | 2B104 |
| Presses, hot isostatic | 2B004 |
| Presses, hot isostatic n.e.s. | 2B999.a |
| Pressure vessels, for nuclear reactors | 0A001.a |
| Pressure tubes, for fuel elements & primary coolant | 0A001.e |
| Pressure transducers | 2B230 |
| Pressure regulators, air cylinders, hoses, valves and backpacks | 8A992.h |
| Pressure sensors, manganin & quartz | 6A226 |
| Primary cells and secondary cells | 3A001.e.1.a, 3A991.j |
| Printed circuit boards for numerical control units, machine tools or feed back devices | 2B998.c |
| Private automatic branch exchanges (PABXs) | 5A991.c |
| Probing (test) systems, semiconductor devices | 3B002.d |
| Process control instrumentation, for reprocessing plant | 0B006.d |
| Process control hardware/systems designed for power industries | 1B999 |
| Process control hardware/systems designed for power industries controlled by 1B999, software for | 1D999.a |
| Process control systems for use in nuclear reactor equipment | 2A290.b |
| Process control systems for use in nuclear material handling and processing equipment | 2A291.a |
| Processing equipment for bay or bottom cable systems | 6A001.a.2.e.3 |
| Processors, digital array | 3A001.a.3 Note |
| Processors, digital signal | 3A001.a.3 Note |
| Processors, digital signal | 4A003 |
| Processors, digital array | 4A003 |
| Product & tails collectors, for uranium vapor | 0B001.i.1 |
| Product & tails stations, UF6 | 0B002.c |

| Description | ECCN Citation |
|---|-------------------------|
| Product & tails collector systems, uranium vapor | 0B001.g.3 |
| Production facilities, reentry vehicles | 9B116 |
| Production equipment, propulsion systems & components | 9B115 |
| Production equipment, reentry vehicles | 9B115 |
| Production facilities, rockets/propulsion systems | 9B116 |
| Profilometers | 7B002.b |
| Program proof and validation software for real time processing equipment | 4D993 |
| Programmable gate & logic arrays (FPGA's & FPLA's), field | 3A001.a.7 |
| Programmable & logic arrays (FPGA's & FPLA's), field | 3A001.a.8 |
| Programming controls for filament winding machines | 1B201 |
| Projectile accelerators | 2B232 |
| Projection image transfer equipment | 3B991.b.2.g |
| Projection telescopes, laser diagnostics | 6A005.f.4 |
| Projectors, acoustic | 6A001.a.1.c |
| Prolifometers, to characterize mirrors for laser gyro equipment | 7B102.c |
| Propellant additives and agents | 1C111.c |
| Propellants and constituent materials | 1C111 |
| Propellant control systems | 9A106.d |
| Propellant (liquid) production equipment and components | 1B115 |
| Propellant (liquid) test and handling equipment and components | 1B115 |
| Propellant (solid) production equipment and components | 1B117 |
| Propeller blades or propfans composite technology | 9E003.b.2 |
| Propeller noise reduction technology | 8E002.a |
| Propeller noise reduction software | 8D002 |
| Propellers, contrarotating | 8A002.o.1.b |
| Propellers, water screw | 8A002.o.1 |
| Propulsion equipment, nuclear | 0A002 |
| Propulsion systems/components, production equipment | 9B115 |
| Propulsion systems, rocket | 9A005 |
| Propulsion equipment, underwater | 8A992.j |
| Propulsion system components/structures, launch-vehicle | 9A010 |
| Propulsion system composite components/structures | 9A110 |
| Propulsion system use software | 9D101 |
| Propulsion systems, rocket | 9A009 |
| Propulsion systems, rocket | 9A007 |
| Propulsive substances | 1C111.a |
| Protective and detection equipment | 1A004, 1A995, 2B351 |
| Protective clothing, Independently ventilated | 2B352.f.1 |
| Protective suits, gloves, shoes | 1A004, 1A995, 2B352.f.1 |
| Proximity focused image intensifier tubes | 6A203.b.3.a |
| <i>Pseudomonas mallei</i> (<i>Burkholderia mallei</i>) | 1C351.c.5 |
| <i>Pseudomonas pseudomallei</i> (<i>Burkholderia pseudomallei</i>) | 1C351.c.6 |
| Psychological stress analysis equipment | 3A981 |
| <i>Puccinia striiformis</i> (syn. <i>Puccinia glumarum</i>) | 1C354.b.5 |
| <i>Puccinia graminis</i> (syn. <i>Puccinia graminis</i> f. sp. <i>tritici</i>) | 1C354.b.4 |
| Pulmonary and renal syndrome-haemorrhagic fever viruses (Seoul, Dobrava, Puumala, Sin Nombre) | 1C351.a.31 |
| Pulsating Chemical Vapor Deposition production equipment | 2B005.a.1.a |
| Pulse amplifiers | 3A999.c |
| Pulse excited Q switched neodymium-doped lasers | 6A205.f |
| Pulse generators, high-current for detonators | 3A229 |
| Pulse generators, high-speed | 3A230 |
| Pulse jet engines/components | 9A111 |
| Pulse radar cross-section measurement systems & components | 6B008 |
| Pulse shaping networks, high power | 3A999.c |
| Pulsed electron accelerators | 3A201.c |
| Pumpjet propulsion systems | 8A002.p |
| Pumps, liquid propellant | 9A106.d |
| Pumps, lithium amalgam | 1B233.b.2 |
| Pumps, mercury or lithium amalgam | 1B233.b.2 |
| Pumps, molecular | 0B001.c.9 |
| Pumps, multiple-seal | 2B350.i |
| Pumps, nuclear reactor coolant | 0A001.g |
| Pumps, potassium amide in liquid ammonia | 1B230 |

| Description | ECCN Citation |
|---|------------------|
| Pumps, seal-less | 2B350.i |
| Pumps, submersible stage recirculation | 0B004.b.2.c |
| Pumps, vacuum | 0B002.f.2 |
| Pumps, vacuum | 2B231 |
| Pumps, vacuum | 2B350.i |
| Pumps designed for industrial service | 2B999.j |
| Pumps designed to move molten metals by electromagnetic force | 2A293 |
| Puumala (pulmonary and renal syndrome-haemorrhagic fever viruses) | 1C351.a.31 |
| Pyrolitic deposition nozzles | 1B116 |
| Pyrolitic deposition systems (“isostatic presses”, other than those controlled by 2B004) | 2B104 |
| Pyrolitic deposition systems (chemical vapor deposition furnaces, other than those controlled by 2B005.a) | 2B105 |
| Pyrolitic deposition systems, for rocket nozzles and reentry vehicle nose tips | 2B117 |
| Pyrolitically derived materials production technology | 1E104 |
| Pyrolized carbon-carbon components | 1A102 |
| Pyrolized carbon-carbon materials | 1C102 |
| Pyrolysis equipment, for rocket nozzles and reentry vehicle nose tips (“isostatic presses”, other than those controlled by 2B004) | 2B104 |
| Pyrolysis equipment, for rocket nozzles and reentry vehicle nose tips (chemical vapor deposition furnaces, other than those controlled by 2B005.a) | 2B105 |
| Pyrolysis equipment, for rocket nozzles and reentry vehicle nose tips (other than those controlled by 2B004, 2B005.a, 2B104, or 2B105) | 2B117 |
| Pyrolysis process control equipment, for “isostatic presses”, other than those controlled by 2B004 | 2B104 |
| Pyrolysis process control equipment, for chemical vapor deposition furnaces, other than those controlled by 2B005.a | 2B105 |
| Pyrolysis process control equipment (other than those controlled by 2B004, 2B005.a, 2B104, or 2B105) | 2B117 |
| Pyrotechnic articles, dual use | 1A984 |
| Pyrotechnic devices, commercial | 1C018.j, 1C992.k |
| QRS11-00100-100/101 Micromachined Angular Rate Sensors | 7A994 |
| Q-switched lasers | 6A005.a or b |
| Q-switched lasers | 6A205.f |
| Quadrature-amplitude-modulation (QAM) based radio equipment operating above level 4 | 5A991.b.7.a |
| Quadrature-amplitude-modulation (QAM) based radio equipment operating above level 16 | 5A991.b.7.b |
| Quadrature-amplitude-modulation (QAM) based radio equipment | 5A991.b.7 |
| Quadrature-amplitude-modulation (QAM) based radio equipment, equipment for the development of | 5B001.b.4.a |
| Quadrature-amplitude-modulation (QAM) based radio equipment, software for the development of | 5D001.d.4.a |
| Quadrature-amplitude-modulation (QAM) based radio equipment, technology for the development of | 5C001.c.4.a |
| Quantum cryptography | 5A002.a.9 |
| Quartz pressure sensors/transducers | 6A226.b |
| 3-Quinuclidinol | 1C350.b.19 |
| 3-Quinuclidone | 1C350.d.15 |
| Radar cross section measurement systems, missile | 6B108 |
| Radar systems & components | 6A008 |
| Radar altimeters | 7A106 |
| Radar software | 6D003.h |
| Radar systems, employing automatic pattern recognition | 6A008.l.3 |
| Radar systems, employing signal processing | 6A008.h |
| Radial ball bearings | 2A001 |
| Radiation detection, monitoring and measurement equipment | 1A999.a |
| Radiation hardened detectors | 6A002 |
| Radiation hardened detectors | 6A102 |
| Radiation hardened designed (or rated) robots | 2B007.c |
| Radiation hardened electronic computers | 4A001.a.2 |
| Radiation hardened integrated circuits | 3A001.a.1 |
| Radiation hardened sensors | 6A002 |
| Radiation hardened TV cameras | 6A203.c |
| Radiation hardened TV cameras not specified in 6A203 | 6A999.b |
| Radiation transport calculations/modeling, software for | 0D999.b |
| Radiation sensors, optical fibers | 6A002.d.3 |
| Radiation shielding windows | 1A227 |
| Radio frequency ion excitation coils | 0B001.i.2 |
| Radio equipment | 5A001.b.2-4 |
| Radio equipment | 5A991.b.6-7 |
| Radio relay communications equipment | 5A991.h |
| Radio, shortwave technology | 5E001.c.4.c |

| Description | ECCN Citation |
|--|--------------------|
| Radio systems development/production technology | 5E001.b.3 |
| Radiographic detection equipment | 1A999.b |
| Radiographic equipment | 3A101.b |
| Radionuclides, alpha-emitting | 1C236 |
| Radionuclides, alpha-emitting, n.e.s. | 1C999.g |
| Radium-226, compounds, mixtures, products or devices | 1C237 |
| Radome design software | 6D003.h.2 |
| Radomes usable in protecting missiles against nuclear effects | 6A103 |
| Raman shift lasers | 6A205.e |
| Ramjet engines/components | 9A011 |
| Range gated illumination systems, underwater | 8A002.d.2 |
| Range instrumentation radars | 6A108.b.2 |
| Rankine cycle engine, air independent | 8A002.j.1 |
| Rate tables and positioning tables | 2B121 |
| Rate tables, positioning tables, and motion simulators | 2B120 |
| Reactor vessels, chemical | 2B350.a |
| Reactors, nuclear | 0A001 |
| Reactors, metal organic chemical vapor deposition (MOCVD) | 3B001.a.2 |
| Real time processing | 2D002.b |
| Real time processing operating systems | 4D993.c |
| Real time processing equipment operating system software | 4D993.c |
| Real time processing proof and validation software | 4D993 |
| Receivers, microwave test | 3A002.f |
| Receivers, radio | 5A001.b.2-4 |
| Reciprocating diesel engine & component technology | 9E003.e.1 |
| Reconstructed replication competent forms of the 1918 pandemic influenza virus containing any portion of the coding regions of all eight gene segments | 1C360.a.1.c |
| Recording equipment, analog & digital tape recorders | 3A002.a |
| Recovery of source code - software | 5D001.c.2 |
| Reduced observables analysis software | 1D103 |
| Reduction gearing, light-weight marine transmissions | 8A002.o.1.d |
| Reentry vehicles & equipment | 9A116 |
| Reentry vehicles/components, production equipment | 9B115 |
| Reflectance measuring equipment, absolute | 6B004 |
| Reflectivity (electromagnetic) reducing materials | 1C101 |
| Reflectometers, mirror characterization | 7B102.b |
| Reflectors (mirrors), optical | 6A004.a.1 |
| Refrigeration units, cryogenic | 0B001.d.7.b |
| Refrigeration units, hydrogen or helium | 1B231.b.1 |
| Reinforced composite materials | 1C007.f |
| Reinforcement fiber, production equipment | 1B001.d |
| Release mechanisms, electronic | 9A992 |
| Remote manipulators | 2B225 |
| ●Remotely operated vehicles | 1A006.a |
| Remotely operated filling equipment, chemical | 2B350.f |
| Remotely piloted vehicles (RPVs), non-military | 9A012 |
| Remotely controlled manipulators, for submersibles | 8A002.i |
| Repeater/regenerator equipment | 5A991.b Note a.4.5 |
| Reprocessing plant, nuclear fuel | 0B006 |
| Resaturated pyrolyzed components | 1A102 |
| Resaturated pyrolyzed materials | 1C102 |
| Resin impregnated fiber prepregs for 9A110 items | 9C110 |
| Resin impregnated fibers | 1C010.e |
| Resin (thermoset) impregnated continuous materials | 1C210.c |
| Resin impregnated fiber prepregs, propulsion & space systems | 9A110 |
| Resins, fast reacting ion-exchange | 0B001.f.1 |
| Resist materials, semiconductor lithography | 3C002 |
| Resists (positive), semiconductor lithography | 3C992 |
| Resist material, coated (semiconductor) substrates | 3C002 |
| Restraint devices (electronic monitoring) | 3A981 |
| Restraint devices, including leg irons, shackles, and handcuffs; straight jackets, plastic handcuffs | 0A982 |
| Reticles, integrated circuits of 3A001 | 3B001.g |
| Reticles and designs | 3B991.b.2 |

| Description | ECCN Citation |
|---|---------------|
| Ricin | 1C351.d.5 |
| Rickettsia prowasecki (a.k.a. Rickettsia prowazekii) | 1C351.b.3 |
| Rickettsia quintana | 1C351.b.1 |
| Rickettsia rickettsii | 1C351.b.4 |
| Rickettsiae | 1C351.b |
| Rift Valley fever virus | 1C351.a.14 |
| Rinderpest virus | 1C352.a.12 |
| Ring laser gyro mirror characterizing equipment | 7B002 |
| Ring Magnets | 0A999 |
| Ring-shaped motor stators for multiphase AC motors | 0B001.c.10 |
| Rings or bellows, gas centrifuge | 0B001.c.6 |
| Robot end-effectors | 2B207 |
| Robot end-effectors | 2B007 |
| Robot controllers for high explosive handling | 2B207 |
| Robot controllers | 2B007 |
| Robots with real time 3D image processing or scene analysis | 2B007.a |
| Robots not controlled by 2B007 or 2B207 | 2B997 |
| Robots, specially designed to operate at high altitudes | 2B007.d |
| Robots, explosive/munitions environment handling | 2B007.b |
| Robots, radiation hardened | 2B007.c |
| Robots with real time 3D image processing or scene analysis | 2B207 |
| Robots specially designed for underwater use | 8A002.h |
| Rochalimea quintana | 1C351.b.1 |
| Rocio virus | 1C351.a.27 |
| Rocket fuels | 1C111 |
| Rocket/rocket motor, test benches/stands | 9B117 |
| Rocket engines, solid propellant | 9A107 |
| Rocket motors, hybrid | 9A109 |
| Rocket nozzles | 9A106.b |
| Rocket stages, other than those of 9A005/7/9, 9A105/107/109 | 9A119 |
| Rocket motor inspection equipment | 9B007 |
| Rockets, sounding | 9A104 |
| Roller bearings, solid | 2A001.a |
| Roller bearings, solid | 2A001.b |
| Rollers for prepregs/preform production | 1B101.d |
| Rotary shaft seals (for compressors/blowers), UF6 resistant | 0B001.b.2.b |
| Rotary position feedback units | 2B008.b |
| Rotary shaft seals | 0B001.d.3 |
| Rotary shaft seals for compressors | 0B001.h.4 |
| Rotor assembly mandrels, bellows forming | 2B228.a |
| Rotor assemblies, gas centrifuge | 0B001.c.2 |
| Rotor blade tip clearance control, compensating system software | 9D004.d |
| Rotor centrifugal balancing machines | 2B229 |
| Rotor components, tooling for manufacture | 9B009 |
| Rotor fabrication/assembly equipment | 2B228.a |
| Rotor forming mandrels, precision | 2B209.b |
| Rotor straightening equipment or systems | 2B228.b |
| Rotor tube baffles, gas centrifuge | 0B001.c.7 |
| Rotor tube caps, gas centrifuge | 0B001.c.8 |
| Rotor tube cylinders & components, gas centrifuge | 0B001.c.3 |
| Routers, telecommunications | 5A991.c.10 |
| Ruby lasers | 6A995.c |
| Russian Spring-Summer encephalitis virus | 1C351.a.15 |
| S-parameter test/measurement equipment | 3B002.a |
| S20 and S25 photocathodes | 6A002 |
| Sabia (South American haemorrhagic fever) | 1C351.a.30 |
| Safety cabinets, capable of biological use | 2B352.f.2 |
| Salmonella typhi | 1C351.c.10 |
| Salvage systems, ocean | 8A001.e |
| Saps | 0A978 |
| Satellite communication equipment technology | 5E001.b.1 |
| Satellite receivers | 7A005 |
| Satellite receivers, other than those of 7A005 | 7A105 |

| Description | ECCN Citation |
|---|---------------|
| Satellites, commercial communications | 9A004 |
| SAW (Surface Acoustic Wave) devices | 3A001.c.1 |
| Saxitoxin | 1C351.d.6 |
| Scanning electronic beam guns | 0B001.g.1 |
| Scanning cameras & systems | 6A003.b.2 |
| Scatterometers | 7B002.a |
| Scatterometers, to characterize mirrors for laser gyro equipment | 7B102.a |
| Sclerophthora rayssiae var. zaeae | 1C360.c.2.b |
| Scoops for UF6 extraction in gas centrifuges | 0B001.c.13 |
| Scramjet engines/components | 9A011 |
| Screw reactors, UF6 production | 0B003.b.1 |
| Scuba gear | 8A992.h |
| SDH (Synchronous Digital Hierarchy) technology | 5E001.b.4 |
| SDH (Synchronous Digital Hierarchy) technology | 5E991.a.2 |
| Sea-induced motion control systems, automatic | 8A002.n |
| Sealers (semi-automatic or automatic hot cap) for ceramic microcircuit packages | 3B991.b.3.c |
| Seal-less pumps | 2B350.i |
| Seals, aircraft/aerospace use | 1A001.a |
| Seals, for surface effect vessels | 8A002.k |
| Seals, made from fluoroelastomers | 1A001.c |
| Seals, rotary shaft | 0B001.d.3 |
| Seals, rotary shaft for compressors | 0B001.h.4 |
| Search lights | 0A018.a |
| Security equipment, information | 5A002 |
| Security equipment, information, software | 5D002 |
| Segmented mirrors, assembly in space | 6A004.c.3 |
| Seismic detection equipment | 6A999.a |
| Semiconductor, test equipment | 3B002 |
| Semiconductor compound photocathodes | 6A002.a.2.b.3 |
| Semiconductor components, extended temperature range | 3A001.a.2 |
| Semiconductor component design software, computer-aided-design | 3D003 |
| Semiconductor device discrete testing equipment | 3B992.b.4.a |
| Semiconductor device inspection or testing equipment and systems | 3B992.b |
| Semiconductor device or material manufacturing equipment | 3B001 |
| Semiconductor devices manufacturing equipment and systems | 3B991.b |
| Semiconductor lasers | 6A005.d.1 |
| Semiconductor materials purifying or processing equipment | 3B991.b.1.b |
| Semiconductor probing systems, electron & laser beam | 3B002.d |
| Sensing elements, hydrophone | 6A001.a.2.a |
| Sensing fibers, optical (not controlled by 6A002) | 6C992 |
| Sensor materials, optical | 6C002 |
| Sensors, direction finding systems (passive) | 7A115 |
| Sensors, industrial infrared | 6A002.a |
| Sensors, linear position feedback unit | 2B008.a |
| Sensors, Micromachined Angular Rate | 7A994 |
| Sensors, multispectral imaging | 6A002.b |
| Sensors, optical | 6A992 |
| Sensors, optical | 6A002 |
| Sensors, pressure (manganin & quartz) | 6A226 |
| Sensors, radiation hardened | 6A102 |
| Sensors, superconductive electromagnetic | 6A996 |
| Seoul (pulmonary and renal syndrome-haemorrhagic fever viruses) | 1C351.a.31 |
| Separation mechanisms for missiles | 9A117 |
| Separation nozzles, aerodynamic isotope separation | 0B001.d.1 |
| Separation nozzles, UF6/Carrier gas separation | 0B001.d.7.c |
| Separation plant, aerodynamic isotope separation | 0B001.a.3 |
| Separation process (aerodynamic) equipment | 0B001.d |
| Separation systems for separating UF6 from carrier gas | 0B001.h.5 |
| Separation tubes, aerodynamic isotope separation | 0B001.d.2 |
| Separator module housings (cylindrical or rectangular vessels) | 0B001.g.4 |
| Separator module housings, uranium metal plasma source | 0B001.i.6 |
| Separators, centrifugal (biological) | 2B352.c |
| Separators, electromagnetic isotope | 1B226 |

| Description | ECCN Citation |
|--|------------------|
| Separators, molecular laser isotopic separation | 0B001.h |
| Servo valves, propellant control systems | 9A106.d |
| Shackles | 0A982 |
| Shaft encoders (rotary input type) | 3A001.f |
| Shale oil | 1C981 |
| Shaving machines, gear | 2B003 |
| Sheep pox virus | 1C352.a.13 |
| Shields, police | 0A979 |
| Shiga toxin | 1C351.d.7 |
| Shiga-like ribosome inactivating proteins other than verotoxin | 1C351.d.10 |
| Shigella dysenteriae | 1C351.c.11 |
| Ship vessel positioning systems, acoustic | 6A001.a.1.d |
| Shock batons | 0A985 |
| Shock tubes | 1C018, 1C992.c |
| Shoes, protective | 1A004, 1A995 |
| Shortwave radio technology | 5E001.c.4.c |
| Shotgun shells | 0A986 |
| Shotgun shell manufacturing equipment | 0B986 |
| Shotgun shells, buckshot | 0A984 |
| Shotguns and shotgun shells, technology for the development or production of | 0E984 |
| Shotguns, barrel length 18 inches or over | 0A984 |
| Shrink fit machines for rotor fabrication/assembly | 2B228.a |
| Sidelooking airborne radar (SLAR) | 6A008.d |
| Signal processor microcircuits | 3A001.a.3 Note |
| Signal generators, frequency synthesizer based | 3A002.d |
| Signal analyzers | 3A002.c |
| Signal processing devices, acousto-optic | 3A001.c.3 |
| Signal processing (digital) transmission equipment | 5A991.b.8 |
| Signal processing equipment, sonar | 6A001.a.1.d |
| Signal processing equipment | 4A994.f |
| Signal processing equipment, general purpose digital | 4A003 |
| Signal processing equipment, hydrophone arrays | 6A001.a.2.c |
| Signal tracking development/use technology, laser | 5E001.b.2 |
| Signature suppression devices, treatments & fittings | 1C001 |
| Signature (electromagnetic) reduction devices | 1C001 |
| Signature (electromagnetic) reduction devices | 1A101 |
| Signature suppression devices, treatments & fittings | 1A101 |
| Silahydrocarbon oils | 1C006.a.1 |
| Silicon carbide (SiC) substrate blanks | 6C004.d |
| Silicon, hetero-epitaxial grown multi-layer substrates | 3C001.a |
| Silicon microcircuits | 3A001.a |
| Silicone carbide wafers | 3C005 |
| Silicon-on-sapphire integrated circuits | 3A001.a Note 2 |
| Silicone fluid, fluorinated | 1C006.b.2 |
| Silver gallium selenide (AgGaSe ₂) | 6C004.b.2 |
| Silylated resists for semiconductor lithography | 3C002.d |
| Simulators for nuclear reactors | 2A291.b |
| Simultaneous initiation arrangements or systems, single & multipoint | 3A232.b |
| Single crystal casting control software | 9D004.c |
| Single crystal casting equipment | 9B001.a |
| Single crystals | 6C002.b |
| Single mode optical fiber & cable | 5A991 |
| Single point diamond turning techniques, technology | 6E003.d.2 |
| Single-element & focal plane arrays, space-qualified | 6A002.e |
| Sin Nombre (pulmonary and renal syndrome-haemorrhagic fever viruses) | 1C351.a.31 |
| Skin friction transducers, wall | 9B008 |
| Skirts, for surface effect vessels | 8A002.k |
| ●Slapper detonators (Electric) | 1A007, 3A232.a.3 |
| Slurry propellant control systems | 9A106.d |
| Small waterplane area vessels | 8A001.i |
| Smoke bombs | 1A984 |
| Sodium azide | 1C992.1 |
| Sodium bifluoride | 1C350.d.16 |

| Description | ECCN Citation |
|---|--------------------|
| Sodium cyanide | 1C350.d.17 |
| Sodium fluoride | 1C350.d.18 |
| Sodium (Na) metal vapor lasers | 6A005.b |
| Sodium sulphide | 1C350.d.19 |
| <i>Software, see product group D for controls in each category</i> | |
| Software, adaptive control | 2D002.b.2 |
| Software, adaptive control | 2D992.a |
| Software, electronic devices | 2D002 |
| Software, for coordinating function of multiple subsystems for use in missiles | 9D105 |
| Software, for potable electric generator development or production | 2D994 |
| Software for Nuclear materials, facilities and equipment | 0D001 |
| Software, multi-data-stream processing equipment operating systems | 4D003.a |
| Software, numerical control | 2D002 |
| Software, real time processing in machine tools | 2D002.b |
| Software, real time processing equipment operating systems | 4D993.c |
| Software, recovery of source code | 5D001.c.2 |
| "Software" specially designed or modified for the "development", "production" or "use" of equipment controlled by 2A983 | 2D983 |
| "Software" specially designed for the "development" of the equipment controlled by 3A003 | 3D004 |
| Software, multi-data-stream processing equipment compilers | 4D003.a |
| ●Solar cells, cell-interconnect-coverglass (CIC) assemblies, solar panels, and solar arrays (space qualified) | 3A001.e.4, 3A991 |
| Solenoids, superconductive | 3A001.e.3 |
| Solenoids, superconductive | 3A201.b |
| Solid propellant rocket engines | 9A107 |
| Solid rocket propulsion systems | 9A007 |
| Solid rocket propulsion system, components | 9A008 |
| Solid rocket propulsion system, components | 9A108 |
| Solid state cameras | 6A003.b.1 |
| Solid state joining equipment, tools/dies/fixtures | 9B004 |
| Solid state imaging devices | 6A203.b.3 |
| Solid-state imaging devices | 6A002 |
| Solid-state pulsed power switching thyristor devices and thyristor modules | 3A001.g |
| Solid state lasers, tunable | 6A005.c |
| Solid state microwave amplifiers | 3A001.b.4 |
| Solid state storage equipment | 4A994.d |
| Sonar processing equipment | 6A001.a.2.b |
| Sonar log equipment | 6A001.b |
| Sonar, underwater navigation system | 7A008 |
| Sonar signal processing equipment | 6A001.a.1.d Note a |
| SONET (Synchronous Optical Network) technology | 5E001.b.4 |
| SONET (Synchronous Optical Network) technology | 5E991.a.2 |
| Sounding rocket use software | 9D101 |
| Sounding rockets | 9A104 |
| Source code automatic generation software | 4D993.b |
| Source code, for multi-data-stream processing equipment | 4D003.a |
| Source code, development of goods as specified | 7D003.d |
| Source code recovery software | 5D001.c.2 |
| South American haemorrhagic fever (Sabia, Flexal, Guanarito) | 1C351.a.30 |
| Space launch vehicles | 9A004 |
| Space probes | 9A004 |
| Space qualified focal plane arrays | 6A002.e |
| Space qualified or radiation hardened photovoltaic arrays | 3A001.e.1.c |
| Space-qualified solid state detectors | 6A002.a.1 |
| Space-qualified optical components | 6A004.c |
| Spacecraft | 9A004 |
| Spacecraft components | 9A010 |
| Spacecraft inertial navigation equipment/components | 7A003 |
| Spark-gaps, triggered | 3A228.b |
| Spectrometry analytical instruments | 3A999.f |
| Spherical aluminum powder | 1C111.a.1 |
| Spin forming machines | 2B009 |
| Spin forming machines | 2B209 |
| Spin forming machines | 2B999I |
| Spin forming machines capable of flow-forming functions | 2B209 |

| Description | ECCN Citation |
|---|------------------|
| Spin forming machines combining spin-forming and flow-forming function | 2B009 |
| Spindle assemblies | 2B998.a |
| Spindle assemblies, machine tools | 2B008.c |
| Spray booms or arrays of aerosol generating units, specially designed for fitting to aircraft, "lighter than air vehicles," or "UAVs" | 2B352.h.2 |
| Spray cooling thermal management systems | 3A003 |
| Spraying or fogging systems, specially designed for fitting to aircraft, "lighter than air vehicles," or "UAVs" | 2B352.h.1 |
| Spraying production equipment, plasma with controlled atmosphere | 2B005.d |
| Spread spectrum development technology techniques | 5E001.b.4 |
| Spread spectrum radio equipment | 5A001.b.3 |
| Spread spectrum spreading code generation | 5A002.a.5 |
| Sprytion tubes, vacuum | 3A228.a |
| Sputter deposition production equipment | 2B005.e |
| Sputtering equipment, magnetically enhanced | 3B991.b.1.f |
| SQUIDS (Superconducting quantum interference devices) | 6A006.a.1 |
| Staging mechanisms for missiles | 9A117 |
| Stainless steel plate | 1C999.b |
| Staphylococcus aureus toxins | 1C351.d.8 |
| Statistical multiplex equipment | 5A991.b Note a.7 |
| Stators, ring shaped (centrifugal rotor motor) | 0B001.c.10 |
| Steam sterilizable freeze drying equipment | 2B352.e |
| Steel, maraging | 1C216 |
| Steel, maraging | 1C116 |
| Steel, Titanium-stabilized duplex stainless (Ti-DSS) | 1C118 |
| Steel plate, stainless | 1C999.b |
| Step & repeat equipment, semiconductor wafer processing | 3B001.f.1 |
| Stirling cycle engine, air independent | 8A002.j.4 |
| St. Louis encephalitis virus | 1C351.a.28 |
| Storage & holding vessels, critically safe & resistant to nitric acid | 0B006.e |
| Storage integrated circuits | 3A001.a.4 |
| Storage phosphor image plates | 1A999.b |
| Storage tanks, chemical (capacity greater than 100 L) | 2B350.c |
| Stored program controlled (SPC) switching equipment | 5A991.c |
| Stored program controlled (SPC) switching equipment, equipment for the development of equipment employing | 5B001.b |
| Stored program controlled (SPC) switching equipment, software for the development of equipment employing | 5D001.d |
| Stored program controlled (SPC) switching equipment, technology for the development of equipment employing | 5E001.c |
| Stored program controlled equipment controlled by 3B, software for use of | 3D002 |
| Stored program controlled crystal pullers | 3B991.b.1.c.2 |
| Straight jackets | 0A982 |
| Strap down/gimbal inertial navigation systems or equipment | 7A003 |
| Streak cameras, mechanical type | 6A203.a.2 |
| Streak cameras, mechanical or electronic | 6A003.a.3 |
| Streak tubes, electronic streak cameras | 6A203.b.1 |
| Streak cameras, electronic type | 6A203.b.1 |
| Strip electronic beam guns | 0B001.g.1 |
| Stroboscopic light systems | 8A992.c |
| Structural composites production equipment | 1B101 |
| Structures and composite structures, laminate, and manufacturers for missiles | 9A110 |
| Stun guns | 0A985 |
| Subcavitating hydrofoils | 8A002.m |
| Submarine engines, n.e.s. | 8A992.g |
| Submarine net | 8A018.b.5 |
| Submarine vessel positioning systems, acoustic | 6A001.a.1.d |
| Submersible stage recirculation pumps | 0B004.b.2.c |
| Submersible systems | 8A992.e |
| Submersible vehicles/vehicle systems, equipment, or components | 8A002.a |
| Submersible vehicles/vehicle systems or equipment | 8A001 |
| Subscriber line interfaces | 5A991.c.2.a |
| Substrate development/production technology, diamond film | 3E003.d |
| Substrates, for X-ray masks | 3B991.b.2.b.2 |
| Substrates, hard surface coated | 3B991.b.2.b.1 |
| Substrates, multi-layer hetero-epitaxial materials | 3C001 |
| Substrates, semiconductor with resist coating | 3C002 |

| Description | ECCN Citation |
|---|-------------------------|
| ●Substrates with at least one epitaxial layer of silicon carbide, gallium nitride, aluminum nitride or aluminum gallium nitride | 3C006 |
| Suits, protective | 1A004, 1A995, 2B352.f.1 |
| Sulphur dichloride | 1C350.c.7 |
| Sulphur monochloride | 1C350.c.6 |
| Super-ventilated propellers | 8A002.o.1.a |
| Supercavitating hydrofoils | 8A002.m |
| Supercavitating propellers | 8A002.o.1.a |
| Supercomputers, see Computers | |
| Superconducting quantum interference devices (SQUIDS) | 6A006.a.1 |
| Superconductive composite conductor | 1C005 |
| Superconductive gates, current switching | 3A001.d.1 |
| Superconductive 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 |
| Supersonic expansion nozzles for UF6 carrier gas | 0B001.h.1 |
| Surface irregularity measuring equipment/instruments | 2B006.c |
| Surface coating & processing equipment | 2B005 |
| Surface skimming (shallow bulk) acoustic wave devices | 3A001.c.1 |
| Surface acoustic wave devices | 3A001.c.1 |
| Surface vessel positioning systems, acoustic | 6A001.a.1.d |
| Surface vessels & components | 8A001 |
| Surface finishing equipment | 3B991.b.1.k |
| Surface-effect vehicles, (fully skirted variety) | 8A001.f |
| Surface-effect vehicles, (fully skirted variety) | 8A002.k |
| Surface-effect vehicles,(rigid sidewalls) | 8A001.g |
| Surreptitious interception devices | 5A980 |
| Survey systems, bathymetric | 6A001.a.1.b |
| Swine fever virus (African) | 1C352.a.1 |
| Swine fever virus (Hog cholera virus) | 1C352.a.7 |
| Switch fabric development/production technology | 5A991.c.10 |
| Switch-terminal interfaces | 5A991.c.2.a |
| Switching devices, modules or assemblies | 3A228 |
| Switching equipment, stored program controlled | 5A991.c |
| Synchronous Digital Hierarchy (SDH) technology | 5E001.b.4 |
| Synchronous Digital Hierarchy (SDH) technology | 5E991.a.2 |
| Synchronous Optical Network technology (SONET) | 5E001.b.4 |
| Synchronous Optical Network technology (SONET) | 5E991.a.2 |
| Synchytrium endobioticum | 1C360.c.2.c |
| Syntactic foam, underwater use | 8C001 |
| Synthetic crystalline laser host material | 6C005 |
| Synthetic diamond material | 6C004.f |
| Synthetic aperture radar (SAR) | 6A008.d |
| Systolic array computers/assemblies/components | 4A004.a |
| T-2 toxin | 1C351.d.15 |
| Tanks, austenitic stainless steel | 2B999.n |
| Tanks, chemical storage (capacity greater than 100 L) | 2B350.c |
| Tanks, monel | 2B999.f |
| Tanks, stainless steel | 2B999.g |
| Tank turret rings and sprockets induction hardening machines | 2B018.m |
| Tank turret bearing grinding machines | 2B018.s |
| Tantalum crucibles coated with tantalum carbide/nitride/boride | 2A225.c |
| Tantalum made or lined crucibles | 2A225.b |
| Tape designed for testing recording equipment of entry 3A002a | 3A002.a |
| Tape bonders, stored program controlled equipment | 3B991.b.3.b |
| Tape recording equipment | 3A002.a |

| Description | ECCN Citation |
|---|---------------|
| Tape-laying machines | 1B101.b |
| Tape-laying machines | 1B001.b |
| Tar sands | 1C981 |
| Tear gas | 1A984 |
| <i>Technology, see product group E for controls for each category.</i> | |
| Technology, airborne equipment | 7E004.a |
| Technology, development of frequency hopping techniques | 5E001.b.4 |
| Technology, development of spread spectrum techniques | 5E001.b.4 |
| Technology, diamond substrate film | 3E003.d |
| Technology, gas turbine engine components | 9E003.c |
| Technology, gas turbine engine components | 9E003.a |
| Technology, helicopter power transfer systems | 9E003.d |
| Technology, hetero-structure semiconductor development | 3E003.b |
| Technology, high output type diesel engines | 9E003.e |
| Technology, integration software for expert systems | 2E003.e |
| Technology, machine tool instruction generators | 2E003.d |
| “Technology” specially designed or modified for the “development”, “production” or “use” of equipment controlled by 2A983, or the “development” of software controlled by 2D983 | 2E983 |
| Technology, superconductive electronic device | 3E003.c |
| Technology, tilt rotor/wing power transfer systems development | 9E003.d |
| Technology, vacuum microelectronic device | 3E003.a |
| TEGDN (Triethylene glycol dinitrate) propellant additive | 1C111.c.2 |
| Telecommunications equipment | 5A001 |
| Telecommunications equipment, high and low temperature tolerant | 5A991.a |
| Telecommunication equipment not controlled by 5A001 | 5A991 |
| Telecommunications equipment/system software | 5D001.c.1 |
| Telecommunication test, inspection and production equipment | 5B001 |
| Telecommunications test equipment | 5B991 |
| Telecommunications transmission equipment, equipment for the development of equipment employing | 5B001.b |
| Telecommunications transmission equipment, software for the development of equipment employing | 5D001.d |
| Telecommunications transmission equipment, technology for the development of equipment employing | 5E001.c |
| Telemetry & telecontrol equipment for missiles | 5A101 |
| Television cameras, underwater | 8A002.d.1.b |
| Television systems (camera, lights, monitoring and signal transmission equipment), remote operation with submersible vehicle | 8A992.a.1 |
| Television cameras, underwater | 8A002.d.1 |
| Television cameras, underwater | 8A002.d.1.a |
| Television cameras, underwater | 8A992.a.2 |
| Tellurium (Te) | 6C002.a |
| Tempest type equipment | 5A002.a.4 |
| Tension stretchers for prepregs/preform production | 1B101.d |
| Terminal interface equipment | 4A994.i |
| Terrestrial, marine acoustic equipment | 6A991 |
| Teschen disease virus | 1C352.a.14 |
| Test benches/stands, for rockets/motors/rocket engines | 9B117 |
| Test, calibration or alignment equipment for equipment controlled by 7A | 7B001 |
| Test chambers, aerosol challenge | 2B352.g |
| Test equipment - propellants and their constituents | 1B115 |
| Test equipment - specially designed for testing finished or unfinished semiconductor devices | 3B002 |
| Test receivers, microwave | 3A002.f |
| Test tape designed for recording equipment of entry 3A002a | 3A002.a |
| Testing equipment, for electronic components | 3B992.b.4 |
| Test, inspection, development and production equipment for Category 5 items | 5B |
| Tetrodotoxin | 1C351.d.9 |
| Thallium arsenic selenide (Tl ₃ AsSe ₃ or TAS) | 6C004.b.3 |
| Thermal ionization mass spectrometers (TIMS) | 3A233.c |
| Thermal shields | 0A001.h |
| Thermal sensors, optical fiber | 6A002.d.3 |
| Thermoplastic liquid crystal copolymers | 1C008.b |
| Thermoset resin impregnated materials | 1C210.c |
| Thio-ethers, as lubricating fluids | 1C006.b.1 |
| Thiodiglycol | 1C350.b.20 |
| Thionyl chloride | 1C350.c.8 |

| Description | ECCN Citation |
|--|----------------------------|
| Thorium | 0C001 |
| Thrust tabs, thrust vector control subsystems | 9A106.c |
| Thrust vector control sub-system | 9A106.c |
| Thulium-YAG (Tm:YAG) lasers | 6A005.c.1, c.2. or c.3 |
| Thulium-YSGG (Tm:YSGG) lasers | 6A005.c.1, c.2. or c.3 |
| Thumbcuffs | 0A983 |
| Thumbscrews | 0A983 |
| Thyristor devices and modules, solid-state pulsed power switching | 3A001.g |
| Tick-borne encephalitis virus | 1C351.a.15 |
| Tilt rotor/tilt wing power transfer system technology | 9E003.d |
| Tilting spindles for machine tools | 2B009.c |
| Time delay general, electronic equipment for | 3A999.e |
| Time interval measurement, electronic equipment for | 3A999.e |
| Time or frequency domain processing & correlation equipment | 6A001.a.2.c |
| TIMS (Thermal ionization mass spectrometers) | 3A233.c |
| Titanium alloys | 1C002.a.2.c |
| Titanium alloys, as tubes/solid forms/forgings | 1C202.b |
| Titanium alloy/powder or particulate form | 1C002.b.1.c |
| Titanium aluminides | 1C002.a.1.b |
| Titanium-based alloys | 1C002.a.1 |
| Titanium doped sapphire laser host material | 6C005.a |
| Titanium-sapphire (Ti: Al ₂ O ₃) lasers | 6A005.c.1, c.2. or c.3 |
| Titanium-stabilized duplex stainless steel 9Ti-DSS) | 1C118 |
| TMETN (trimethylolethane trinitrate) | 1C111.c.4 |
| Tooling for powder metallurgy rotor component manufacture | 9B009 |
| Torpedo net | 8A018 |
| Torture, specially designed implements of | 0A983 |
| Tow-placement machines | 1B001.b |
| Towed acoustic hydrophone arrays | 6A001.a.2.b |
| Toxic gas monitoring systems | 2B351 |
| Toxins | 1C350, 1C351, 1C355, 1C395 |
| Tracking radar | 6A008.1.1 |
| Tracking systems, precision | 6A108.b.1 |
| Tracking systems | 6A008.1 |
| Tractors and parts | 9A990 |
| Transceivers, radio | 5A001.b.2-10 |
| Transceivers, radio | 5A991.b.6-7 |
| Transcoders (translation encoders) | 5A991.b Note a.6 |
| Transducers, wall skin friction | 9B008 |
| Transducers, acoustic projectors | 6A001.a.1.c |
| Transient recorders (Waveform digitizers) | 3A002.a.5, 3A292.d |
| Transistor test equipment, S-parameter measurement | 3B002.a |
| Transistors, microwave | 3A001.b.3 |
| Translation encoders (transcoders) | 5A991.b Note a.6 |
| Transmission fluids, automatic | 1C980 |
| Transmission equipment | 5A991.b |
| Transmultiplex equipment | 5A991.b Note a.9 |
| Traveling wave tubes (TWTs), industrial | 3A001.b.1.a |
| Tray exchange towers, hydrogen sulphide-water | 0B004.b.1.a |
| Tributyl phosphate | 1C999.d |
| Triethanolamine | 1C350.c.9 |
| Triethanolamine hydrochloride | 1C350.d.20 |
| Triethyl phosphite | 1C350.c.10 |
| Triethylene glycol dinitrate (TEGDN) | 1C111.c.2 |
| Triggered spark-gaps | 3A228.b |
| Triggers, high voltage | 3A999.c |
| Trimethyl phosphite | 1C350.c.11 |
| Tritium, compounds & mixtures | 1C235 |
| Tritium plant or facilities equipment | 1B231.b |
| Tritium production recovery, extraction & concentration handling facilities or plant | 1B231.a |
| Trusted Computer System Evaluation Criteria (TCSEC) capability | 5A002.f |
| Tubes, cylindrical or conical tangential inlet flow-driven | 0B001.d.2 |
| Tubes, gas krytron | 3A228.a |

| Description | ECCN Citation |
|--|------------------------|
| Tubes, pressure, nuclear reactors | 0A001.e |
| Tubes, vacuum sprytron | 3A228.a |
| Tubes, zirconium | 0A001.f |
| 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 |
| Turbines, gas aero engines | 9A001 |
| Turbo prop engines | 9A018.a.2 |
| Turbocompound engines | 9A101 |
| Turboexpanders and turboexpander-compressors | 0B004.b.3.b |
| Turboexpanders and turboexpander-compressors | 1B232 |
| Turbofan & turbojet engines, lightweight | 9A101 |
| Turning machines for optical quality surfaces | 2B992.a |
| Turning machines (CNC) | 2B991.d.1 |
| Turning machines | 2B201.c |
| Turning machines (CNC) | 2B001.a |
| TV cameras, radiation-hardened | 6A203.c |
| TV cameras, radiation-hardened, not specified in 6A203 | 6A999.b |
| Two dimensional focal plane arrays | 6A002.a.3 |
| TWTs (Traveling Wave Tubes) | 3A001.b.1.a |
| UAVs (non-military) | 9A012.a |
| UF6 | 0B001.d.3 |
| UF6 / carrier gas separation systems | 0B001.h.5 |
| UF6 / carrier gas separation systems | 0B001.d.7 |
| UF6 cold traps | 0B001.d.7.d |
| UF6 cold traps | 0B002.b |
| UF6 desublimers | 0B002.b |
| UF6 Gaseous diffusion barriers & housing | 0B001.b.3.4 |
| UF6 liquefaction and solidification stations | 0B002.d |
| UF6 mass spectrometers/ion sources | 0B002.g |
| UF6 piping & header systems | 0B002.e |
| UF6 product & tails stations | 0B002.c |
| UF6 production plant, equipment & components | 0B003 |
| UF6 resistant compounds & powders | 0C201 |
| UF6 resistant or protected systems, equipment & components | 0B002 |
| UF6 vacuum headers | 0B002.f.1 |
| UF6 vacuum pumps | 0B002.f.2 |
| UF6 vacuum manifolds | 0B002.f.1 |
| Ultrasonic test equipment for nuclear reactors | 2A291.d |
| Underwater breathing apparatus, self-contained | 8A992.h |
| Underwater cameras, photographic | 8A002.d-f |
| Underwater camera equipment, n.e.s. | 8A992.d |
| Underwater communications systems | 5A001.b.1 |
| Underwater electronic imaging systems | 8A002.f |
| Underwater electric field sensors | 6A006.b |
| Underwater lights | 8A992.j |
| Underwater noise reduction technology | 8E002 |
| Underwater optical fiber cables & accessories | 5A001.c.2 |
| Underwater (propeller) noise reduction software | 8D002 |
| Underwater propulsion equipment | 8A992.j |
| Underwater rebreathing apparatus | 8A018.a |
| Underwater robots, computer controlled | 8A002.h |
| Underwater sonar navigation systems | 7A008 |
| Underwater systems or equipment and parts, not controlled by 8A002 | 8A992 |
| Underwater television cameras | 8A992.a.2 |
| Underwater vehicles, industrial | 8A001 |

| Description | ECCN Citation |
|--|---------------|
| Underwater velocity measurement equipment | 6A001.b |
| Underwater vessel positioning systems, acoustic | 6A001.a.1.d |
| Underwater vision systems | 8A002.d |
| Underwater vision systems | 8A992.a |
| Unmanned aerial vehicles, not specified in 9A102 | 9A120 |
| Unmanned aerial vehicles and associated systems, production equipment | 9B010 |
| Unmanned aerial vehicles, associated equipment, systems, and components | 9A012.b |
| Unmanned air vehicle systems (UAVs) Non-military | 9A012.a |
| Unmanned tethered submersible vehicles | 8A001.c |
| Unmanned untethered submersible vehicles | 8A001.d |
| Uranium cooling equipment | 0B001.g.2 |
| Uranium conversion plant & equipment | 0B003 |
| Uranium, depleted | 1A290 |
| Uranium electromagnetic separator vacuum housings | 0B001.j.3 |
| Uranium fluoride (UF5) product filter collectors | 0B001.h.2 |
| Uranium hexafluoride (UF6) production plant, equipment & components | 0B003 |
| Uranium hexafluoride (UF6) resistant compounds & powders | 0C201 |
| Uranium hexafluoride (UF6) resistant compounds & powders | 0C006 |
| Uranium isotopes separation, lasers or laser systems | 0B001.h.6 |
| Uranium, natural or depleted | 0C001 |
| Uranium oxidation systems | 0B001.e.6 |
| Uranium plasma generation systems | 0B001.i.4 |
| Uranium titanium alloys | 1C004 |
| Uranium vapor product & tails collector systems | 0B001.g.3 |
| Vaccines and immunotoxins | 1C991 |
| Vacuum furnaces | 2B226 |
| Vacuum furnaces | 2B227 |
| Vacuum induction furnaces | 2B226 |
| Vacuum induction furnace, power supplies | 2B226 |
| Vacuum headers | 0B002.f.1 |
| Vacuum housings for uranium electromagnetic separators | 0B001.j.3 |
| Vacuum manifolds | 0B002.f.1 |
| Vacuum melting, remelt & casting furnaces | 2B227 |
| Vacuum microelectronic device development/production technology | 3E003.a |
| Vacuum pumps | 2B231 |
| Vacuum pumps | 2B350.i |
| Vacuum pumps for UF6 bearing atmospheres | 0B002.f.2 |
| Vacuum tubes, electronic microwave | 3A001.b.1 |
| Vacuum sphytron tubes | 3A228.a |
| Vacuum valves, piping, flanges, gaskets | 2B999.k |
| Valve seats, made from fluoroelastomers | 1A001.c |
| Valves, austenitic stainless steel | 2B999.n |
| Valves, bellows seal | 2A226 |
| Valves, bellows | 2B350.g |
| Valves, bellows | 0B001.d.6 |
| Valves, double-seal | 2B350.g |
| Valves, of or lined with stainless steel, copper-nickel alloy or other alloy steel | 2A292 |
| Valves, diaphragm | 2B350.g |
| Valves, gaseous diffusion isotope separation | 0B001.b.1 |
| Valves, monel | 2B999.f |
| Valves, multiple seal incorporating a leak detection port | 2B350.g |
| Valves, non-return (check) | 2B350.g |
| Valves, stainless steel | 2B999.g |
| Valves, vacuum | 2B999.k |
| Variola virus | 1C351.a.16 |
| Vector processing unit technology | 3E002 |
| Vector processors/assemblies | 4A003 |
| Vehicle position determination software | 6D103 |
| Vehicles, specially designed or modified for military purposes | 9A018.b |
| Velocity interferometers (VISARs) | 6A225 |
| Velocity measurement equipment, underwater | 6A001.b |
| Venezuelan equine encephalitis virus | 1C351.a.17 |
| Ventilated full or half (protective clothing) suits | 2B352.f.1 |

| Description | ECCN Citation |
|---|---------------------|
| Ventilated propellers | 8A002.o.1.a |
| Verotoxin | 1C351.d.10 |
| Vesicular stomatitis virus | 1C352.a.15 |
| Vessels, austenitic stainless steel | 2B999.n |
| Vessel positioning systems, acoustic | 6A001.a.1.d |
| Vessel noise reduction equipment | 8A002.o.3 |
| Vessels, marine | 8A001 |
| Vessels, marine systems or equipment | 8A992 |
| Vessels, monel | 2B999.f |
| Vessels, stainless steel | 2B999.e |
| Vests, bulletproof & bullet resistant | 1A005 |
| Vibration test equipment, acoustic | 9B006 |
| Vibration test equipment, parts and components | 9B990 |
| Vibration test equipment using digital control techniques | 2B116 |
| Vibrio cholerae | 1C351.c.12 |
| Video cameras incorporating solid state sensors | 6A003.b.1 |
| Vinylidene fluoride copolymers | 1C009.a |
| Vinylidene fluoride copolymers, components of | 1A001 |
| virulans, fungi (Colletotrichum kahawae) | 1C354.b.1 |
| Virus protection software | 5D992 |
| Viruses | 1C351, 1C352, 1C353 |
| Viruses, animal pathogens | 1C352.a |
| Viruses, human pathogens | 1C351.a |
| Viruses, plant pathogens | 1C354.c |
| Viscous software, 2D or 3D engine flow modeling | 9D004.a |
| Viscum Album Lectin 1 (Viscumin) | 1C351.d.19 |
| Vision systems, underwater | 8A992.a |
| Vision systems, underwater | 8A002.d |
| Voice print identification and analysis equipment and parts | 3A980 |
| Volkensin toxin | 1C351.d.18 |
| Vortex tubes, aerodynamic isotope separation | 0B001.d.2 |
| Vortex tube units, UF6 separation from carrier gas | 0B001.d.7.c |
| Wafer handling systems, semiconductor | 3B001.e |
| Wafer processing, semiconductor manufacture | 3B001.e |
| Wafer probing equipment | 3B992.b.3 |
| Wafer production align and expose equipment | 3B991.b.2.f |
| Wafers, semiconductor with function determined | 3A001.a |
| Wafers, comprising multiple epitaxially grown layers | 3C001 |
| Wall skin friction transducers | 9B008 |
| War implement machinery, equipment, gear, and specially designed parts and accessories therefor | 2B018 |
| Water distillation towers, heavy | 0B004.b.4.a |
| Water jet cutting machines (CNC) | 2B001.e.1.a |
| Water jet (pumpjet) propulsion systems | 8A002.p |
| Water tunnels, propulsion model acoustic field measurement | 8B001 |
| Water-hydrogen sulphide exchange tray columns | 1B229 |
| Water-screw propellers | 8A002.o.1 |
| Wave division multiplex equipment | 5A991.b.5 |
| Waveform digitizers (Transient recorders) | 3A002.a.5 |
| Wax pattern preparation equipment, ceramic shell | 9B991.e |
| Weaving machines | 1B001.c |
| Weight belts | 8A992.i |
| Welders, MIG | 2B999.d |
| Welders, E-beam | 2B999.e |
| Welding machines, laser | 2B999.c |
| Western equine encephalitis virus | 1C351.a.18 |
| 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 |
| White pox | 1C351.a.19 |
| 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 |

| Description | ECCN Citation |
|---|---------------|
| Wind tunnel, control systems | 9B005 |
| Wind tunnels, usable for missiles | 9B105 |
| Winding machines, fiber optic gyro coil | 7B003 |
| Windows, glass for nuclear radiation shielding | 1A227 |
| Work stations, as computers having a CTP above 260 Mtops | 4A003.b |
| X-ray converters | 1A999.b |
| X-ray equipment for projection image transfer | 3B991.b.2.g |
| X-ray generators, radiographic | 3A201.c |
| X-ray machines, all flash | 3A999.c |
| X-ray (non planar) inspection equipment, rocket motors | 9B007 |
| X-ray sensitive resist materials | 3C002.c |
| Xanthomonas campestris pv. Citrumelo | 1C354.a.2 |
| Xanthomonas citri | 1C354.a.2 |
| Xanthomonas albilineans | 1C354.a.1 |
| Xanthomonas campestris pv. aurantifolia | 1C354.a.2 |
| Xanthomonas campestris pv. Citri | 1C354.a.2 |
| Xylella fastidiosa pv. citrus variegated chlorosis (CVC) | 1C360.c.1.c |
| Yellow fever virus | 1C351.a.20 |
| Yersinia pestis | 1C351.c.13 |
| Yttrium oxide (yttria) (Y ₂ O ₃), crucibles made or coated | 2A225.a.8 |
| Zinc selenide (ZnSe), substrate blanks | 6C004.a |
| Zinc sulphide (ZnS), substrate blanks | 6C004.a |
| Zirconium fluoride (ZrF ₄) glass | 6C004.e |
| Zirconium metal and alloy tubes & assemblies | 0A001.f |
| Zirconium metal particulate | 1C111.a.2.a |
| Zirconium metal, alloy, compounds, or manufacturers | 1C234 |
| Zirconium oxide (zirconia) (ZrO ₂) made/coated crucibles | 2A225.a.9 |
| Zoonotic pathogens and "toxins" | 1C351 |