SCHEDULE

Regulation 22

"SCHEDULE 2H

Regulation 20(3)

Chemical and Biological Weapons-Related Goods and Chemical and Biological Weapons-Related Technology

PART 1

Interpretation

1. For the purposes of this Schedule "CAS Number" when followed by a numerical sequence is a reference to the CAS Registry Numbers assigned to chemicals by the Chemical Abstracts Service(1).

PART 2 Chemical and biological weapons-related goods and chemical and biological weapons-related technology

Chemical Name (1)	CAS Number (2)
Aluminium chloride	(7446-70-0)
Ammonia	(7664-41-7)
Dichloromethane	(75-09-2)
N,N-Dimethylaniline	(121-69-7)
Isopropyl bromide	(75-26-3)
Isopropyl ether	(108-20-3)
Monoisopropylamine	(75-31-0)
Potassium Bromide	(7758-02-3)
Pyridine	(110-86-1)
Sodium bromide	(7647-15-6)
Sodium metal	(7440-23-5)
Tributylamine	(102-82-9)
Triethylamine	(121-44-8)
Trimethylamine	(75-50-3)
Diethylenetriamine	(111-40-0)
Butyrylcholinesterase (BCHE)	Not Applicable
Pyridostigmine bromide	(101-26-8)
Obidoxime chloride	(114-90-9)

⁽¹⁾ https://www.cas.org/cas-data/cas-registry.

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Chemical Name (1)	CAS Number (2)
Acetylene	(CAS 74-86-2)
Acetone	(CAS 67-64-1)
Antimony	(CAS 7440-36-0)
Arsenic	(CAS 7440-38-2)
Arsenic trioxide	(CAS 1327-53-3)
Bis(2-chloroethyl)ethylamine hydrochloride	(CAS 3590-07-6)
Bis(2-chloroethyl)methylamine hydrochloride	(CAS 55-86-7)
Benzil	(CAS 134-81-6)
Benzaldehyde	(CAS 100-52-7)
Benzoin	(CAS 119-53-9)
2-bromochloroethane	(CAS 107-04-0)
Chlorine	(CAS 7782-50-5)
Diethyl ether	(CAS 60-29-7)
Dimethyl ether	(CAS 115-10-6)
Dimethylaminoethanol	(CAS 108-01-0)
Dicyclohexylamine (DCA)	(CAS 101-83-7)
Ethylene	(CAS 74-85-1)
Ethylene dichloride	(CAS 107-06-2)
2-methoxyethanol	(CAS 109-86-4)
Ethyl bromide	(CAS 74-96-4)
Ethyl chloride	(CAS 75-00-3)
Ethylamine	(CAS 75-04-7)
Ethylene oxide	(CAS 75-21-8)
Fluorapatite	(CAS 1306-05-4)
Hexamine	(CAS 100-97-0)
Hydrogen sulfide	(CAS 7783-06-4)
Isocyanatomethane	(CAS 624-83-9)
Isopropanol, 95% concentration or greater	(CAS 67-63-0)
Mandelic acid	(CAS 90-64-2)
Methylamine	(CAS 74-89-5)
Methyl bromide	(CAS 74-83-9)
Methyl chloride	(CAS 74-87-3)
Methyl iodide	(CAS 74-88-4)

Chemical Name (1)	CAS Number (2)
Methylmercaptan	(CAS 74-93-1)
Monoethylene Glycol (MEG)	(CAS 107-21-1)
Nitromethane	(CAS 75-52-5)
Oxalyl chloride	(CAS 79-37-8)
Pierie acid	(CAS 88-89-1)
Potassium sulfide	(CAS 1312-73-8)
Potassium thiocyanate	(CAS 333-20-0)
Quinaldine	(CAS 91-63-4)
Thiophosphoryl chloride	(CAS 3982-91-0)
Tributylphosphite	(CAS 102-85-2)
Triisobutylphosphite	(CAS 1606-96-8)
Tris(2-chloroethyl)amine hydrochloride	(CAS 817-09-4)
Sodium hypochlorite	(CAS 7681-52-9)
Sulfur trioxide	(CAS 7446-11-9)
White/yellow phosphorus	(CAS 12185-10-3, 7723-14-0)
Mercury	(7439-97-6)
Barium chloride	(10361v37-2)
Sulphuric acid, with a concentration by weight of 90% or greater	(7664-93-9)
3,3-dimethyl-1-butene	(558-37-2)
2,2-dimethylpropanal	(630-19-3)
2,2-dimethylpropylchloride	(753-89-9)
2-methylbutene	(26760-64-5)
2-chloro-3-methylbutane	(631-65-2)
2,3-dimethyl-2,3-butanediol	(76-09-5)
2-methyl-2-butene	(513-35-9)
Butyl lithium	(109-72-8)
Bromo(methyl)magnesium	(75-16-1)
Formaldehyde	(50-00-0)
Diethanolamine	(111-42-2)
Dimethylcarbonate	(616-38-6)
Methyldiethanolamine hydrochloride	(54060-15-0)
Methanol	(67-56-1)
Ethanol	(64-17-5)

Chemical Name (1)	CAS Number (2)
1-butanol	(71-36-3)
2-butanol	(78-92-2)
Iso-butanol	(78-83-1)
Tert-butanol	(75-65-0)
Cyclohexanol	(108-93-0)
Diethylamine hydrochloride	(660-68-4)
Diisopropylamine hydrochloride	(819-79-4)
3-Quinuclidinone hydrochloride	(1193-65-3)
3-Quinuclidinol hydrochloride	(6238-13-7)
(R)-3- Quinuclidinol hydrochloride	(42437-96-7)
N,N-Diethylaminoethanol hydrochloride	(14426-20-1)
Acetyl-alpha-methylfentanyl	101860-00-8
Alfentanil	71195-58-9
Alpha-methylfentanyl	79704-88-4
Alpha-methylthiofentanyl	103963-66-2
Beta-hydroxyfentanyl	78995-10-5
Beta-hydroxy-3-methylfentanyl	78995-14-9
Fentanyl	437-38-7
3-methylfentanyl	42045-86-3
3-methylthiofentanyl	86052-04-2
Para-fluorofentanyl	90736-23-5
Remifentanil	132875-61-7
Sufentanil	56030-54-7
Thiofentanyl	60771-38-2
Acryloylfentanyl (Acrylfentanyl)	82003-75-6
Carfentanil	59708-52-0
4-Fluoroisobutyrfentanyl (4-FIBF, pFIBF)	244195-32-2
Furanyl fentanyl	101345-66-8
Ocfentanil	101343-69-5
Tetrahydrofuranyl fentanyl (THF-F)	2142571-01-3
Cyclopropylfentanyl	1169-68-2
Methoxyacetylfentanyl	101345-67-9
Orthofluorofentanyl	910616-29-4

Chemical Name (1)	CAS Number (2)
Parafluorobutyrylfentanyl	244195-31-1
Crotonylfentanyl	760930-59-4
Valerylfentanyl	122882-90-0
4-Anilino- <i>N</i> -phenethylpiperidine (ANPP)	21409-26-7
N-Phenethyl-4-piperidone (NPP)	39742-60-4
Dialkyl(≤C10) chlorophosphates	N/A
Dialkyl(≤C10) fluorophosphates	N/A
N,N-Methylisopropylacetamidine	1339185-57-7
N,N-Methylethylacetamidine	1339632-40-4
N,N-Ethylisopropylacetamidine	1339156-10-3
N,N-Methylpropylacetamidine	1344238-28-3
N,N-Ethylpropylacetamidine	1339737-43-7
N,N-Isopropylpropylacetamidine	1341389-98-7
N,N-Methylethylpropanamidine	1339424-26-8
N,N-Ethylisopropylpropanamidine	1344354-09-1
N,N-Methylpropylpropanamidine	1340216-25-2
N,N-Ethylpropylpropanamidine	1341493-60-4
N,N-Isopropylpropylpropanamidine	1343225-93-3
N,N-Methylisopropylpropanamidine	1339042-55-5
N,N-Methylethylbutanamidine	1341049-51-1
N,N-Methylpropylbutanamidine	1343721-02-7
N,N-Ethylpropylbutanamidine	1343806-12-1
N,N-Isopropylpropylbutanamidine	1343316-02-8
N,N-Methylisopropylbutanamidine	1340219-94-4
N,N-Ethylisopropylbutanamidine	1342204-10-7
N,N-Methylethylisobutanamidine	1342365-47-2
N,N-Ethylpropylisobutanamidine	1342566-58-8
N,N-Methylpropylisobutanamidine	1342270-21-6
N,N-Isopropylpropylisobutanamidine	1342156-11-9
N,N-Methylisopropylisobutanamidine	1341992-96-8
N,N-Ethylisopropylisobutanamidine	1339048-76-8
N,N-Dimethylacetamidine hydrobromide	1801188-12-4
N,N-Dimethylacetamidine hydrochloride	2909-15-1

Chemical Name (1)	CAS Number (2)
N,N-Diethylacetamidine hydrochloride	91400-32-7
N,N-Diethylacetamidine hydrobromide	78053-54-0
N,N-Dimethylpropanamidine dihydrochloride	79972-73-9
N,N-Dimethylpropanamidine hydrochloride	56776-15-9
Calcium carbide	75-20-7
Carbon monoxide	630-08-0
Monoethyleneglycol	107-21-1
Sulphur	7704-34-9
Sulphur dioxide	7446-09-5

Equipment

Item (1)

Floor-mounted fume hoods (walk-in style) with a minimum nominal width of 2.5 metres.

Full face-mask air-purifying and air-supplying respirators.

Class II biosafety cabinets and glove boxes.

Batch centrifuges with a rotor capacity of 4 L or greater, usable with biological materials.

Fermenters with an internal volume of 10 L - 20 L, usable with biological materials.

Reaction vessels, reactors, agitators, heat exchangers, condensers, pumps (including single seal pumps), valves, storage tanks, containers, receivers, and distillation or absorption columns that meet AG performance parameters, regardless of their materials of construction.

Conventional or turbulent air-flow clean-air rooms and self-contained fan-HEPA filter units that may be used for P3 or P4 (BSL 3, BSL 4, L3, L4) containment facilities.

Vacuum pumps with a manufacturer's specified maximum flow-rate greater than 1 m³/h (under standard temperature and pressure conditions), casings (pump bodies), preformed casing-liners, impellers, rotors, and jet pump nozzles designed for such pumps, in which all surfaces that come into direct contact with the chemicals being processed are made from controlled materials.

Laboratory equipment, including parts and accessories for such equipment, for the analysis or detection, destructive or non-destructive, of chemical substances.

Whole chlor-alkali electrolysis cells – mercury, diaphragm, and membrane.

Titanium electrodes (including those with coatings produced from other metal oxides), specially designed for use in chlor-alkali cells.

Nickel electrodes (including those with coatings produced from other metal oxides), specially designed for use in chlor-alkali cells.

Bipolar titanium nickel electrodes (including those with coatings produced from other metal oxides), specially designed for use in chlor-alkali cells.

Asbestos diaphragms specially designed for use in chlor-alkali cells.

Fluoropolymer based diaphragms specially designed for use in chlor-alkali cells.

Item (1)

Fluoropolymer based ion exchange membranes specially designed for use in chlor-alkali cells.

Compressors specially designed to compress wet or dry chlorine, regardless of material of construction.

Microwave reactors—

Machinery, plant or laboratory equipment, whether or not electrically heated, for the treatment of materials by a process involving a change of temperature such as heating 84 19 89 98 00.

Microreactors—

Instruments and apparatus for physical or chemical analysis: 90 27 89 90 00 BE (classified similar item to 90 27 80 17 90, now invalid due to code changes), for similar microreactors.

Solid & Liquid Aerosol generating equipment—

Mechanical appliances (whether or not hand-operated), for projecting, dispersing or spraying liquids or powders: 84 24 89 70 00.

Laboratory equipment

Item (1)

Next-generation (second generation) and third generation DNA and RNA sequencers

PCR Machines and qPCR (real-time) PCR machines

Solid phase DNA and RNA synthesisers

Peptide synthesizers

Automated nucleic acid extraction systems

Ultracentrifuges

Probe sonicators

Fast protein liquid chromatography (FPLC) systems (medium pressure chromatography systems)

Cell disruptors and tissue homogenisers, with a volume of 1 L or greater

Associated Parts and Consumables

(2)

Item (1)

Next generation (second generation) and third DNA and RNA sequencing reagent kits generation DNA and RNA sequencers

Library and template preparation kits

Cluster generation kits

Flow cells

PCR Machines and qPCR (real-time) PCR machines

Solid phase DNA and RNA synthesisers

Nucleoside phosphoramidites

Item (1) (2)

Columns

Solid support resin

Reagent kits

Synthesis reagents

Peptide synthesizers Fmoc and T-Boc protected amino acids

Resins

Synthesis reagents

Automated nucleic acid extraction systems Reagents

Rotor adapters

Ultracentrifuges Ultracentrifuge rotors with total capacity 1 L or

greater

Probe sonicators Sonicator probes over 25mm diameter

High volume (1 L or greater) sonicator

continuous flow cell

Fast protein liquid chromatography (FPLC) FPLC columns

systems (medium pressure chromatography

systems)

Reagents

Cell disruptors and tissue homogenisers

Other related items

Item (1)

0B999 Specific processing equipment as follows:

- a. Ring magnets.
- b. Hot cells.
- c. Glove boxes suitable for use with radioactive materials.

0D999 Specific software, as follows:

- a. Software for neutronic calculations/modelling;
- b. Software for radiation transport calculations/modelling;
- c. Software for hydrodynamic calculations/modelling.

1A995 Protective and detection equipment as follows and specially designed components therefor.

- a. Personal radiation monitoring dosimeters;
- b. Equipment limited by design or function to protect against hazards specific to civil industries, such as mining, quarrying, agriculture, pharmaceuticals, medical, veterinary, environmental, waste management, or to the food industry.

Note: This entry does not control items for protection against chemical or biological agents that are consumer goods, packaged for retail sale or personal use, or medical products, such as latex

Item (1)

exam gloves, latex surgical gloves, liquid disinfectant soap, disposable surgical drapes, surgical gowns, surgical foot covers, and surgical masks.

1A999 Specific processing equipment as follows:

Radiation detection, monitoring and measurement equipment

Radiographic detection equipment such as x-ray converters, and storage phosphor image plates.

1C991 Vaccines, immunotoxins, medical products, diagnostic and food testing kits, as follows.

Technical note:- For the purpose of this entry, 'immunotoxins' are monoclonal antibodies linked to a toxin with the intention of destroying a specific target cell while leaving adjacent cells intact. For the purpose of this entry, "medical products" are: (1) pharmaceutical formulations designed for testing and human (or veterinary) administration in the treatment of medical conditions, (2) prepackaged for distribution as clinical or medical products. For the purpose of this entry, "diagnostic and food testing kits" are specifically developed, packaged and marketed for diagnostic or public health purposes. For the purpose of this entry, "vaccine" is defined as a medicinal (or veterinary) product in a pharmaceutical formulation that is intended to stimulate a protective immunological response in humans or animals in order to prevent disease in those to whom or to which it is administered.

Technical Note: For purposes of the controls described in this entry 'toxins' refers to those toxins, or their subunits, controlled under 1C351.dof Annex I of the Dual-Use Regulation

- a. Vaccines containing, or designed for use against, items controlled by 1C351, 1C353 or 1C354 of Annex I of the Dual-Use Regulation;
- b. Immunotoxins containing items controlled by 1C351.d of Annex I of the Dual-Use Regulation;
- c. Medical products that contain any of the following:
- c.1. Toxins controlled by 1C351.d of Annex I of the Dual-Use Regulation (*except for* botulinum toxins controlled by 1C351.d.3 of Annex I of the Dual-Use Regulation, conotoxins controlled by 1C351.d.6, of Annex I of the Dual-Use Regulation or items controlled for CW reasons under 1C351.d.11 or .d.12 of Annex I of the Dual-Use Regulation); or
- c.2. Genetically modified organisms or genetic elements controlled by 1C353.a.3 of Annex I of the Dual-Use Regulation (*except for* those that contain, or code for, botulinum toxins controlled by C351.d.3 of Annex I of the Dual-Use Regulation or conotoxins controlled by 1C351.d.6 of Annex I of the Dual-Use Regulation);
- d. Medical products not controlled by 1C991.c that contain any of the following:
- d.1. Botulinum toxins controlled by 1C351.d.3 of Annex I of the Dual-Use Regulation;
- d.2. Conotoxins controlled by 1C351.d.6 of Annex I of the Dual-Use Regulation; or
- d.3. Genetically modified organisms or genetic elements controlled by 1C353.a.3 of Annex I of the Dual-Use Regulation that contain, or code for, botulinum toxins controlled by 1C351.d.3 of Annex I of the Dual-Use Regulation or conotoxins controlled by 1C351.d.6 of Annex I of the Dual-Use Regulation;
- e. Diagnostic and food testing kits containing items controlled by 1C351.d of Annex I of the Dual-Use Regulation.

1C995 Mixtures that contain chemicals controlled by 1C350 or 1C450 of Annex 1 of the Dual-Use Regulation and medical, analytical, diagnostic, and food testing kits that contain chemicals controlled by 1C350, as follows:

For the purpose of this entry, "medical, analytical, diagnostic, and food testing kits" are prepackaged materials of defined composition that are specifically developed, packaged and marketed for medical, analytical, diagnostic, or public health purposes.

- a. Mixtures containing the following concentrations of precursor chemicals controlled by 1C350 of Annex I of the Dual-Use Regulation:
- a.1. Mixtures containing 10 per cent or less, by weight, of any of the following—

Chemical Name (1)	CAS Number (2)
Arsenic trichloride;	7784-34-1
Benzilic acid;	76-93-7
Diethyl ethylphosphonate;	78-38-6
Diethyl methylphosphonate;	683-08-9
Diethyl methylphosphonite	15715-41-0
Diethyl-N,N-dimethylphosphoroamidate;	2404-03-7
N,N-Diisopropylaminoethanethiol hydrochloride;	41480-75-5
N,N-Diisopropyl-beta-aminoethane thiol;	5842-07-9
N,N-Diisopropyl-beta-aminoethanol;	96-80-0
N,N-Diisopropyl-beta-aminoethyl chloride;	96-79-7
N,N-Diisopropyl-beta-aminoethyl chloride hydrochloride;	4261-68-1
Dimethyl ethylphosphonate;	6163-75-3
Dimethyl methylphosphonate;	756-79-6
N,N-dimethylamino-phosphoryl dichloride;	677-43-0
Ethyl phosphonous dichloride [Ethyl phosphinyl dichloride];	1498-40-4
Ethyl phosphonus difluoride [Ethyl phosphinyl difluoride];	430-78-4
Ethyl phosphonyl dichloride;	1066-50-8
Methylphosphonic acid;	993-13-5
Methylphosphonothioic dichloride.	676-98-2
Pinacolyl alcohol;	464-07-3
3-Quinuclidinol;	1619-34-7
Thiodiglycol.	111-48-8

- a.2. Mixtures containing less than 30 per cent., by weight, of:
- a.2.a. Any of the following—

Chemical Name	CAS Number
Diethyl phosphite;	762-04-9

Chemical Name	CAS Number
Dimethyl phosphite (dimethyl l phosphite);	nydrogen 868-85-9
Ethyldiethanolamine;	139-87-7
Phosphorus oxychloride;	10025-87-3
Phosphorus pentachloride;	10026-13-8
Phosphorus trichloride;	7719-12-2
Sulfur dichloride;	10545-99-0
Sulfur monochloride;	10025-67-9
Thionyl chloride;	7719-09-7
Triethanolamine;	102-71-6
Triethyl phosphite;	122-52-1
Trimethyl phosphite.	121-45-9

or a.2.b. Any of the following single precursor chemicals—

Chemical Name (1)	CAS Number (2)	
Ammonium hydrogen fluoride;	1341-49-7	
2-Chloroethanol;	107-07-3	
Diethylamine;	109-89-7	
N,N-Diethylaminoethanol;	100-37-8	
Diethyl chlorophosphite;	589-57-1	
O,O-Diethyl phosphorodithioate;	298-06-6	
O,O-Diethyl phosphorothioate;	2465-65-8	
Di-isopropylamine;	108-18-9	
Dimethylamine;	124-40-3	
Dimethylamine hydrochloride;	506-59-2	
Ethyl chlorofluorophosphate;	762-77-6	
Ethyl dichlorophosphate;	1498-51-7	
Ethyl difluorophosphate;	460-52-6	
Hydrogen fluoride;	7664-39-3	
3-Hydroxyl-1-methylpiperidine;	3554-74-3	
Methyl benzilate;	76-89-1	
Methyl chlorofluorophosphate;	754-01-8	
Methyl dichlorophosphate;	677-24-7	
Methyl difluorophosphate;	22382-13-4	

Chemical Name (1)	CAS Number (2)
N,N Diethylacetamidine;	14277-06-6
N,N-Diethylbutanamidine;	53510-30-8
N,N-Diethylformamidine;	90324-67-7
N,N Diethylisobutanamidine;	1342789-47-2
N,N-Diethylpropanamidine;	84764-73-8
N,N-Diisopropylbutanamidine;	1315467-17-4
N,N-Diisopropylformamidine;	857522-08-8
N,N-Dimethylacetamidine;	2909-14-0
N,N-Dimethylbutanamidine;	1340437-35-5
N,N-Dimethylformamidine;	44205-42-7
N,N-Dimethylisobutanamidine;	321881-25-8
N,N-Dimethylpropanamidine;	56776-14-8
N,N-Dipropylacetamidine;	1339586-99-0
N,N-Dipropylbutanamidine;	1342422-35-8
N,N-Dipropylformamidine;	48044-20-8
N,N-Dipropylisobutanamidine;	1342700-45-1
N,N-Dipropylpropanamidine;	1341496-89-6
Phosphorus pentasulfide;	1314-80-3
Pinacolone;	75-97-8
Potassium bifluoride;	7789-29-9
Potassium cyanide;	151-50-8
Potassium fluoride;	7789-23-3
3-Quinuclidone;	3731-38-2
Sodium bifluoride;	1333-83-1
Sodium cyanide;	143-33-9
Sodium fluoride;	7681-49-4
Sodium hexafluorosilicate;	16893-85-9
Sodium sulfide;	1313-82-2
Triethanolamine hydrochloride;	637-39-8
Tri-isopropyl phosphite.	116-17-6

b. Mixtures containing the following concentrations of toxic or precursor chemicals controlled by 1C450 of Annex I of the Dual-Use Regulation—

b.1. Mixtures containing the following concentrations of CWC Schedule 2 chemicals controlled by 1C450.a.2, 1C450.b1, 1C450.b2, 1C450.b.3, 1C450.b.4, 1C450.b.5 or 1C450.b.6 of Annex I of the Dual-Use Regulation;

- b.1.a. Mixtures containing 1 per cent. or less, by weight, of any single CWC Schedule 2 chemical controlled by 1C450.a.2 of Annex I of the Dual-Use Regulation (i.e., mixtures containing PFIB); or b.1.b. Mixtures containing 10 per cent. or less, by weight, of any single CWC Schedule 2 chemical controlled by 1C450.b1, 1C450.b2, 1C450.b.3, 1C450.b.4, 1C450.b.5 or 1C450.b.6 of Annex I of the Dual-Use Regulation.
- b.2. Mixtures containing less than 30 per cent., by weight, of any single CWC Schedule 3 chemical controlled by 1C450.a.4, 1C450.a.5, 1C450.a.6, 1C450.a.7, 1C450.b.8, of Annex I of the Dual-Use Regulation.
- c. "Medical, analytical, diagnostic, and food testing kits" that contain precursor chemicals controlled by the following in an amount not exceeding 300 grams per chemical.

Chemical Name (1)	CAS Number (2)
Ammonium hydrogen fluoride;	1341-49-7
2-Chloroethanol;	107-07-3
Diethylamine;	109-89-7
N,N-Diethylaminoethanol;	100-37-8
Diethyl chlorophosphite;	589-57-1
O,O-Diethyl phosphorodithioate;	298-06-6
O,O-Diethyl phosphorothioate;	2465-65-8
Di-isopropylamine;	108-18-9
Dimethylamine;	124-40-3
Dimethylamine hydrochloride;	506-59-2
Ethyl chlorofluorophosphate;	762-77-6
Ethyl dichlorophosphate;	1498-51-7
Ethyl difluorophosphate;	460-52-6
Hydrogen fluoride;	7664-39-3
3-Hydroxyl-1-methylpiperidine;	3554-74-3
Methyl benzilate;	76-89-1
Methyl chlorofluorophosphate;	754-01-8
Methyl dichlorophosphate;	677-24-7
Methyl difluorophosphate;	22382-13-4
N,N Diethylacetamidine;	14277-06-6
N,N-Diethylbutanamidine;	53510-30-8
N,N-Diethylformamidine;	90324-67-7
N,N Diethylisobutanamidine;	1342789-47-2
N,N-Diethylpropanamidine;	84764-73-8
N,N-Diisopropylbutanamidine;	1315467-17-4
N,N-Diisopropylformamidine;	857522-08-8

Chemical Name (1)	CAS Number (2)
N,N-Dimethylacetamidine;	2909-14-0
N,N-Dimethylbutanamidine;	1340437-35-5
N,N-Dimethylformamidine;	44205-42-7
N,N-Dimethylisobutanamidine;	321881-25-8
N,N-Dimethylpropanamidine;	56776-14-8
N,N-Dipropylacetamidine;	1339586-99-0
N,N-Dipropylbutanamidine;	1342422-35-8
N,N-Dipropylformamidine;	48044-20-8
N,N-Dipropylisobutanamidine;	1342700-45-1
N,N-Dipropylpropanamidine;	1341496-89-6
Phosphorus pentasulfide;	1314-80-3
Pinacolone;	75-97-8
Potassium bifluoride;	7789-29-9
Potassium cyanide;	151-50-8
Potassium fluoride;	7789-23-3
3-Quinuclidone;	3731-38-2
Sodium bifluoride;	1333-83-1
Sodium cyanide;	143-33-9
Sodium fluoride;	7681-49-4
Sodium hexafluorosilicate;	16893-85-9
Sodium sulfide;	1313-82-2
Triethanolamine hydrochloride;	637-39-8
Tri-isopropyl phosphite.	116-17-6

SCHEDULE 2I

Regulation 20(3)

Machinery-Related Goods and Machinery-Related Technology

PART 1

Interpretation

- 1.—(1) Paragraph 1 of Schedule 2B applies for the purposes of interpreting Part 2 of this Schedule.
- (2) Terms printed in quotation marks and not defined in this Schedule have the meaning given to them in—

- (a) Schedules 2 and 3 to the Export Control Order 2008(2), or
- (b) Annex I of the Dual-Use Regulation(3), as applicable.

PART 2

Machinery-related goods

- 2. Any thing falling within—
 - (a) a commodity code mentioned in column 1 of the following table, and
 - (b) the description in column 2 corresponding to that code.

Commodity code (1)	Description (2)	
8401	Nuclear reactors; fuel elements (cartridges), non-irradiated, for nuclear reactors; machinery and apparatus for isotopic separation:	
8402	Steam or other vapour generating boilers (other than central heating hot water boilers capable also of producing low pressure steam); superheated water boilers:	
8404	Auxiliary plant for use with boilers of heading 8402 or 8403 (for example, economisers, superheaters, soot removers, gas recoverers); condensers for steam or other vapour power units	
8405	Producer gas or water gas generators, with or without their purifiers; acetylene gas generators and similar water process gas generators, with or without their purifiers	
8406	Steam turbines and other vapour turbines:	
8407	Spark-ignition reciprocating or rotary internal combustion piston engines	
8408	Compression-ignition internal combustion piston engines (diesel or semidiesel engines):	
8409	Parts suitable for use solely or principally with the engines of heading 8407 or 8408	
8410	Hydraulic turbines, water wheels, and regulators therefor	
8412	Other engines and motors	
8413	Pumps for liquids, whether or not fitted with a measuring device; liquid elevators:	
8415	Air-conditioning machines, comprising a motor-driven fan and elements for changing the temperature and humidity, including those machines in which the humidity cannot be separately regulated	

⁽²⁾ S.I. 2008/3231. Schedule 2 was substituted by S.I. 2017/85 and Schedule 3 was substituted by S.I. 2010/2007. Subsequent amendments to those Schedules were made by S.I. 2012/1910; S.I. 2014/1069; S.I. 2015/940; S.I. 2017/85; S.I. 2017/697; S.I. 2018/165; S.I. 2018/939; S.I. 2019/137; S.I. 2019/989; S.I. 2019/1159; S.I. 2020/1502; S.I. 2021/586; S.I. 2022/1042 and S.I. 2023/302. There are other instruments which amend other parts of the Order, which are not relevant to these Regulations.

⁽³⁾ See regulation 2 of the Republic of Belarus (Sanctions) (EU Exit) Regulations 2019 for the definition of "the Dual-Use Regulation".

Commodity code (1)	Description (2)	
8416	Furnace burners for liquid fuel, for pulverised solid fuel or for gas; mechanical stokers, including their mechanical grates, mechanical ash dischargers and similar appliances	
Ex 84 18	Heat pumps other than air-conditioning machines of heading 8415	
8420	Calendering or other rolling machines, other than for metals or glass, and cylinders therefor	
8421	Centrifuges, including centrifugal dryers; filtering or purifying machinery and apparatus, for liquids or gases	
Ex 84 22	Machinery for cleaning or drying bottles or other containers; machinery for filling, closing, sealing or labelling bottles, cans, boxes, bags or other containers; machinery for capsuling bottles, jars, tubes and similar containers; other packing or wrapping machinery (including heat-shrink wrapping machinery); machinery for aerating beverages	
8423	Weighing machinery (excluding balances of a sensitivity of 5 cg or better), including weight-operated counting or checking machines; weighing machine weights of all kinds	
8424	Mechanical appliances (whether or not hand-operated) for projecting, dispersing or spraying liquids or powders; fire extinguishers, whether or not charged; spray guns and similar appliances; steam or sandblasting machines and similar jet projecting machines	
8425	Pulley tackle and hoists other than skip hoists; winches and capstans; jacks	
8426	Ships' derricks; cranes, including cable cranes; mobile lifting frames, straddle carriers and works trucks fitted with a crane	
8427	Fork-lift trucks; other works trucks fitted with lifting or handling equipment	
8428	Other lifting, handling, loading or unloading machinery (for example, lifts, escalators, conveyors, teleferics	
8429	Self-propelled bulldozers, angledozers, graders, levellers, scrapers, mechanical shovels, excavators, shovel loaders, tamping machines and roadrollers	
8430	Other moving, grading, levelling, scraping, excavating, tamping, compacting, extracting or boring machinery, for earth, minerals or ores; piledrivers and pile extractors; snowploughs and snowblowers	
8431	Parts suitable for use solely or principally with the machinery of headings 8425 to 8430	
8439	Machinery for making pulp of fibrous cellulosic material or for making or finishing paper or paperboard	
8440	Bookbinding machinery, including book-sewing machines	
8441	Other machinery for making up paper pulp, paper or paperboard, including cutting machines of all kinds	
8442	Machinery, apparatus and equipment (other than the machine tools of headings 8456 to 8465) for preparing or making plates, cylinders or other printing components; plates, cylinders and other printing components;	

Commodity code (1)	Description (2)
_(*)	plates, cylinders and lithographic stones, prepared for printing purposes (for example, planed, grained or polished)
8443	Printing machinery used for printing by means of plates, cylinders and other printing components of heading 8442; other printers, copying machines and facsimile machines, whether or not combined; parts and accessories thereof
8444 00	Machines for extruding, drawing, texturing or cutting man-made textile materials:
8445	Machines for preparing textile fibres; spinning, doubling or twisting machines and other machinery for producing textile yarns; textile reeling or winding (including weft-winding) machines and machines for preparing textile yarns for use on the machines of heading 8446 or 8447
8447	Knitting machines, stitch-bonding machines and machines for making gimped yarn, tulle, lace, embroidery, trimmings, braid or net and machines for tufting
8448	Auxiliary machinery for use with machines of heading 8444, 8445, 8446 or 8447 (for example, dobbies, jacquards, automatic stop motions, shuttle changing mechanisms); parts and accessories suitable for use solely or principally with the machines of this heading or of heading 8444, 8445, 8446 or 8447 (for example, spindles and spindle flyers, card clothing, combs, extruding nipples, shuttles, healds and heald-frames, hosiery needles)
8449 00 00	Machinery for the manufacture or finishing of felt or nonwovens in the piece or in shapes, including machinery for making felt hats; blocks for making hats
8453	Machinery for preparing, tanning or working hides, skins or leather or for making or repairing footwear or other articles of hides, skins or leather, other than sewing machines
8454	Converters, ladles, ingot moulds and casting machines, of a kind used in metallurgy or in metal foundries
8455	Metal-rolling mills and rolls therefor
8457	Machining centres, unit construction machines (single station) and multi- station transfer machines, for working metal
8458	Lathes (including turning centres) for removing metal
8466	Parts and accessories suitable for use solely or principally with the machines of headings 8456 to 8465, including work or tool holders, self-opening dieheads, dividing heads and other special attachments for machine tools; tool holders for any type of tool for working in the hand
8467	Tools for working in the hand, pneumatic, hydraulic or with self- contained electric or non-electric motor
8468	Machinery and apparatus for soldering, brazing or welding, whether or not capable of cutting, other than those of heading 8515; gas-operated surface tempering machines and appliances

Commodity code (1)	Description (2)
8471	Automatic data-processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included
8474	Machinery for sorting, screening, separating, washing, crushing, grinding, mixing or kneading earth, stone, ores or other mineral substances, in solid (including powder or paste) form; machinery for agglomerating, shaping or moulding solid mineral fuels, ceramic paste, unhardened cements, plastering materials or other mineral products in powder or paste form; machines for forming foundry moulds of sand
8475	Machines for assembling electric or electronic lamps, tubes or valves or flashbulbs, in glass envelopes; machines for manufacturing or hot working glass or glassware
8477	Machinery for working rubber or plastics or for the manufacture of products from these materials, not specified or included elsewhere in this chapter
8479	Machines and mechanical appliances having individual functions, not specified or included elsewhere in this chapter
8480	Moulding boxes for metal foundry; mould bases; moulding patterns; moulds for metal (other than ingot moulds), metal carbides, glass, mineral materials, rubber or plastics
8481	Taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, vats or the like, including pressure-reducing valves and thermostatically controlled valves
8482	Ball or roller bearings
8483	Transmission shafts (including cam shafts and crank shafts) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gear boxes and other speed changers, including torque converters; flywheels and pulleys, including pulley blocks; clutches and shaft couplings (including universal joints)
8484	Gaskets and similar joints of metal sheeting combined with other material or of two or more layers of metal; sets or assortments of gaskets and similar joints, dissimilar in composition, put up in pouches, envelopes or similar packings; mechanical seals
8501	Electric motors and generators (excluding generating sets)
8502	Electric generating sets and rotary converters
8503	Parts suitable for use solely or principally with electric motors and generators, electric generating sets or rotary converters not specified elsewhere
8504	Electrical transformers, static converters (for example, rectifiers) and inductors; parts thereof
8505	Electromagnets (other than for medical use); permanent magnets and articles intended to become permanent magnets after magnetisation; electromagnetic or permanent magnet chucks, clamps and similar holding

Commodity code (1)	Description (2)
	devices; electromagnetic couplings, clutches and brakes; electromagnetic lifting heads; parts thereof
8507	Electric accumulators, incl. separators therefor, whether or not square or rectangular; parts thereof (excl. spent and those of unhardened rubber or textiles)
8511	Electrical ignition or starting equipment of a kind used for spark-ignition or compression-ignition internal combustion engines (for example, ignition magnetos, magneto-dynamos, ignition coils, sparking plugs and glow plugs, starter motors); generators (for example, dynamos, alternators) and cut-outs of a kind used in conjunction with such engines; parts thereof
8514	Industrial or laboratory electric furnaces and ovens (including those functioning by induction or dielectric loss); other industrial or laboratory equipment for the heat treatment of materials by induction or dielectric loss; parts thereof
8529	Parts suitable for use solely or principally with the apparatus of headings 8525 to 8528
8537	Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of headings 8535 or 8536, for electric control or the distribution of electricity, including those incorporating instruments or apparatus of Chapter 90, and numerical control cabinets (excl. switching apparatus for line telephony or line telegraphy or videophones)
8538	Parts suitable for use solely or principally with the apparatus of headings 8535, 8536 or 8537 not specified elsewhere
8539	Electric filament or discharge lamps, including sealed beam lamp units and ultraviolet or infra-red lamps; arc lamps; parts thereof
8544	Insulated (incl. enamelled or anodised) wire, cable (incl. coaxial cable) and other insulated electric conductors, whether or not fitted with connectors; optical fibre cables, made up of individually sheathed fibres, whether or not assembled with electric conductors or fitted with connectors
8545	Carbon electrodes, carbon brushes, lamp carbons, battery carbons and other articles of graphite or other carbon, with or without metal, of a kind used for electrical purposes
8547	Insulating fittings for electrical machines, appliances or equipment, being fittings wholly of insulating material apart from any minor components of metal (for example, threaded sockets) incorporated during moulding solely for purposes of assembly, other than insulators of heading 8546; electrical conduit tubing and joints therefor, of base metal lined with insulating material
8548	Waste and scrap of primary cells, primary batteries and electric accumulators; spent primary cells, spent primary batteries and spent electric accumulators; electrical parts of machinery or apparatus, not specified elsewhere in Chapter 85
	Confidential products under Chapter 85; goods under Chapter 85 transported by post or by parcel post (extra)/reconstituted code for statistical distribution

Machinery-related technology

- **3.** "Software" for the "development", "production" or "use" of any thing falling within paragraphs 2 and 3.
- **4.** "Technology" for the "development", "production" or "use" of any thing falling within paragraphs 2 to 4.

SCHEDULE 2J

Regulation 20(3)

Cement, Gold, Gold Jewellery, Rubber and Wood Products

PART 1

Interpretation

1. Paragraph 1 of Schedule 2B applies for the purposes of interpreting Part 2 of this Schedule.

PART 2

Cement, gold, gold jewellery, rubber and wood products

- 2. "cement" means any thing falling within—
 - (a) a commodity code mentioned in column 1 of the following table, and
 - (b) the description in column 2 corresponding to that code.

(1)	(2)
Commodity Code	Description
2523	Cement, incl. cement clinkers, whether or not coloured
6810	Articles of cement, concrete or artificial stone, whether or not reinforced
3. "gold" means any thing falling within—(a) a commodity code mentioned in column(b) the description in column 2 correspond	g ,
(1)	(2)
Commodity Code	Description
7108	Gold (including gold plated with platinum), unwrought or in semi-manufactured forms, or in powder form

(1)	(2)
Commodity Code	Description
71129 10000	Waste and scrap of gold, including metal clad with gold but excluding sweepings containing other precious metals
ex 7118 9000	Gold coin
4. "gold jewellery" means any th	ning falling within—
(a) a commodity code mentio	ned in column 1 of the following table, and
(b) the description in column	2 corresponding to that code.
(1)	(2)
Commodity Code	Description
Ex 7113	Articles of jewellery and parts thereof, of gold, containing gold or of metal clad with gold
Ex 7114	Articles of goldsmiths' or silversmiths' wares and parts thereof, of gold, containing gold or of metal clad with gold
5. "rubber" means any thing fall	ing within—
(a) a commodity code mentio	ned in column 1 of the following table, and
(b) the description in column	2 corresponding to that code.
(1)	(2)
Commodity Code	Description
4011	New pneumatic tyres, of rubber
6. "wood" means any thing falling	ng within—
(a) a commodity code mentio	ned in column 1 of the following table, and
(b) the description in column	2 corresponding to that code.
(1)	(2)
Commodity Code	Description
44	Wood and articles of wood; wood charcoal"