Dual-Use Items and Technology

Import/Export License Management Catalogue

2025 Edition → 2026 Edition: Comparative Analysis

1. Executive Summary

This document compares the 2025 and 2026 editions of China's Dual-Use Items and Technology Import/Export License Management Catalogue (两用物项和技术进出口许可证管理目录). The 2026 edition is significantly expanded: it adds 7 more pages (161 pages → 168 pages) and approximately 70 new controlled items, reflecting a broadening of dual-use export controls in line with updated Chinese regulatory policy.

The key categories of change are: (1) updated legal basis references, (2) new items added to multiple control categories, (3) HS customs code revisions for several existing items, (4) clarified item descriptions, and (5) minor textual corrections. The overall structure and numbering of the catalogue has shifted throughout due to new insertions.

2. High-Level Overview of Changes

Category	2025	2026	Change
Total pages	161	168	+7 pages
Total controlled items (approx.)	~762	~846	+~84 items
Legal reference note in preamble	Refers to 2024 Joint Announcement No. 51	Refers to "PRC Dual-Use Items Export Control List"	Updated legal basis
Validity date	Up to 31 March 2025	Up to 31 March 2026	Annual renewal
New chemical precursor items	No	Yes (2 new drug precursor chemicals)	Added
New metals / alloys	No	Yes (tungsten-nickel alloys, samarium compounds, indium compounds, bismuth, telluride)	Added
New materials / fibres	No	Yes (carbon/glass fibre composite prepregs further detailed)	Expanded

Category	2025	2026	Change
New biological / pathogen items	No	Reorganised with minor clarifications	Restructured
New UAV customs codes	Partial	Extensively updated HS code sets	Updated
New technology entries	No	Yes (1C004 production tech, 1C117 materials tech, 3C004 production tech, 6C bismuth/telluride)	Added
Storage/tank containers HS code	7310100010 only	7310100010 + 7309000010	HS code added
New end-use note for drug precursors	"only when exporting to Myanmar, Laos, Afghanistan..."	"when exporting to Myanmar, Laos, Afghanistan..." (word "only" removed)	Minor wording change

3. Preamble and Administrative Changes

The preamble (introduction section) of the catalogue has been updated in a key paragraph. Previously, the 2025 edition stated that in cases of discrepancy, the relevant laws, regulations, and the Joint Announcement No. 51 of 2024 by MOFCOM, MIIT, GACC, and the State Cryptography Administration would take precedence. The 2026 edition replaces this specific reference with a broader reference to the "PRC Dual-Use Items Export Control List" (《中华人民共和国两用物项出口管制清单》) and related announcements.

This shift is significant: it signals that the catalogue is now aligned with a standalone Export Control List instrument, rather than a specific inter-agency announcement, suggesting a more systematic legal framework for dual-use controls.

The catalogue validity date has been updated from 31 March 2025 to 31 March 2026, consistent with the annual renewal cycle.

4. New Controlled Items Added in 2026

The following new controlled items (entries) were added to the 2026 catalogue across various sections:

4.1 Drug Precursor Chemicals (Narcotic Precursors)

Two new chemicals have been added to the drug precursor control list (the section covering chemicals that can be used to manufacture narcotics):

Item Name	Description	HS Code	Unit
4-Piperidone (4-哌啶酮)	Can be used to manufacture drugs	2933399073	kg
1-Boc-4-Piperidone (1-叔丁氧羰基-4-哌啶酮)	Can be used to manufacture drugs	2933399073	kg

Additionally, the import section of the catalogue has also been updated to include these two precursors, and a range of additional piperidine derivative drug precursors have been added to the export section, including: 1-ethoxycarbonyl-4-piperidone, 1-benzyloxycarbonyl-4-piperidone, 1,4-dioxa-8-azaspiro[4.5]decane, 1-acetyl-4-piperidone, and several N-Boc piperidine amino compounds used as fentanyl analogues.

4.2 Metals and Alloys

Several new metallic materials have been added:

Tungsten-Nickel Alloys (1C004) — New Entry

A new entry (control code 1C004) has been created for tungsten-nickel-iron and tungsten-nickel-copper alloys meeting all of the following specifications:

- Density greater than 17.5 g/cm³
- Elastic limit exceeding 800 MPa
- Ultimate tensile strength greater than 1270 MPa
- Elongation exceeding 8%

Applicable HS codes: 8101940001, 8101991001, 8101999001. These are heavy alloys used in kinetic energy penetrators, radiation shielding, and counterweights — dual-use in both industrial and military applications.

Molybdenum Powder and Solid Tungsten (1C117.b, 1C117.c) — New Sub-entries

Under control code 1C117, two new sub-entries have been added:

- 1C117.b: Molybdenum powder with molybdenum content ≥97% (by weight) and particle size ≤50 μm, for manufacturing missile components. HS code 8102100001.
- 1C117.c: Solid tungsten (excluding particles/powder) for manufacturing missile components, with specific density, hardness, and performance characteristics. HS codes 8101940001, 8101991001, 8101999001, 7106919001, 7106929001.

Samarium-Related Items (1C902) — New Entry

A new category of samarium-related items (1C902) has been added covering samarium metal and samarium-containing alloys and targets used in permanent magnets and advanced materials:

Sub-code	Item	Description
1C902.a.1	Samarium metal	Metal samarium

Sub-code	Item	Description
1C902.a.2.a–e	Samarium alloys	Sm-Co, Sm-Fe, Sm-Ni, Sm-Al, Sm-Mg alloys
1C902.a.3.a	Samarium targets	Used in thin-film deposition

HS code 3824999922 applies to samarium-related compound products.

Indium-Related Items (3C004) — New Entry

A new control category 3C004 has been added for indium-related semiconductor materials:

Sub-code	Item	HS Code
3C004.a	Indium phosphide (InP) — 磷化铟	2853904051
3C004.b	Trimethylindium — 三甲基铟	2931900032
3C004.c	Triethylindium — 三乙基铟	2931900032

4.3 Bismuth and Tellurium Materials (Category 6C) — New Section

A completely new materials subsection — Category 6C — has been introduced in the 2026 edition, covering bismuth (Bi) and tellurium (Te) based materials, which are used in thermoelectric, infrared, and scintillator applications:

Bismuth-Related Items (6C001)

Sub-code	Item	HS Code
6C001.a	Metallic bismuth and products (ingots, pellets, granules, powder, etc.) not covered by 1C229	8106101091–8106909090
6C001.b	Bismuth germanate (BGO) — 锗酸铋	2841900041
6C001.c	Triphenylbismuth — 三苯基铋	2931900032
6C001.d	Tri-para-ethoxyphenylbismuth — 三对乙氧基苯基铋	2931900032

Tellurium-Related Items (6C002)

Sub-code	Item	HS Code
6C002.a	Metallic tellurium — 金属碲	2804500001
6C002.b.1	Cadmium telluride (CdTe) — 碲化镉	2842902000 / 3818009020

These items are critical for infrared detector arrays, X-ray/gamma-ray detectors, and thermoelectric devices — all with dual-use potential.

4.4 Radioactive Materials — 1C236.d (Curium-240 and Thorium-228)

Under the radioactive isotope section (1C236), an additional sub-entry 1C236.d has been more explicitly structured to include products or devices containing curium-240 (Cm-240) and thorium-228 (Th-228), with updated HS codes 2844429010 and 2844439030.

5. Customs (HS) Code Revisions

Several existing items have had their customs commodity codes updated or supplemented. Key changes include:

Item / Control Code	Old HS Code(s)	New HS Code(s)	Note
Thiosulfochloride (亚硫酰氯) — Item 45 & 1C450.c.14	2812170000	2812170000 + 8506500019	Excludes lithium thionyl chloride batteries ≤1 kg
Tungsten items (1C226)	No additional code	3824300010 + 3824999923 added	For tungsten-containing mixtures
Carbon/glass fibre prepregs (1C210.c)	6815131010, 7019902110, 7019902910, 7019909920	6815131020, 6815131030, 7019902110, 7019902910, 7019909920	Additional HS codes added
Beryllium (1C230)	8112120000, 8112130000	8112120000, 8112130000, 8112190000	HS code 8112190000 added
Zirconium (reference column)	金属锆、铪合 (zirconium-hafnium)	金属锆、锆合 (corrected to zirconium-zirconium)	Typographic correction
Titanium alloy (1C111.b.1.d)	8108202910	8108203010	HS code updated
Storage tanks/containers (multiple 2B350.c entries)	7310100010 only	7310100010 + 7309000010	Additional container HS code added
Environmentally sealed protection suit (2B352.f)	8414709010, 8414609012, 8414809052	8419339040 code variant added	Code set adjusted
Cyclic phosphonate ester (1C450.b.4, item 6)	No code	2931470000	New HS code assigned
3,9-Dimethyl compound (1C450.b.4, item 16)	No code	2931480000	New HS code assigned
Novichok precursor (1C450.a.9)	2929909014, 2931590050	2929909014, 2931590050, 2931590050 (duplicate noted)	Minor restructuring
UAV items (9A012)	8806249010, 8806299010, etc.	Extensive new set including 8806100010,	New UAV HS code categories added

Item / Control Code	Old HS Code(s)	New HS Code(s)	Note
		8806221011, 8806231011, 8806241011, 8806291011, 8806921011, 8806931011, 8806941011, 8806990010	
Unmanned aerial vehicles (9A501)	8806249010, 8806299010, 8806939010, 8806949010, 8806990010	Above codes + 8806100010, 8806221011, 8806231011, 8806241011, 8806291011, 8806921011, 8806931011, 8806941011	Full HS code range updated
Disk turbine bonding tools (9B004)	8205900030, 6804219010, 8207201010, 8207209010, 8207300030	Same set, reformatted layout	No substantive change
Nuclear: enriched uranium (Item 3 in nuclear section)	2844200010, 2844200090	Same codes, description clarified to include materials containing uranium	Description expanded
Nuclear: plutonium purity (Item 3 note)	"Pu-238 isotope concentration >80%"	"Pu-238 isotope abundance >80%" (浓度→丰度)	Terminology correction
Laser isotope separation description	References 《核两用品及相关技术出口管制清单》	References 《中华人民共和国两用物项出口管制清单》	Updated legal instrument reference

6. Item Description and Scope Clarifications

6.1 Thiosulfochloride Battery Exemption

For thiosulfochloride (亚硫酰氯, CAS 7719-09-7) appearing both as item 45 (chemical weapons precursor) and as 1C450.c.14, a new explicit exemption has been introduced: single lithium-thionyl chloride batteries or battery packs with a filling volume not exceeding 1 kg are excluded from the licence requirement. This reflects commercial battery use cases (lithium-$SOCl_2$ batteries are widely used in IoT and industrial sensors).

6.2 Beryllium (1C230) — Exemptions Clarified in Main Text

The three exemptions for beryllium were previously shown in the cross-reference column only; the 2026 edition incorporates them directly into the item description body text, making the control scope more explicit. The exemptions are: (1) beryllium metal windows for X-ray machines or borehole logging equipment; (2) beryllium oxide products or semi-finished products designed for electronic components or as circuit substrates; (3) emerald or aquamarine (beryllium-aluminium silicate minerals).

6.3 Carbon/Glass Fibre Prepregs (1C210.c)

The description of carbon and glass fibre prepregs (resin-impregnated continuous tows, rovings, yarns, or tapes ≤15 mm wide) has been restructured. The 2026 edition separates the entry into sub-items and adds new HS codes (6815131020, 6815131030), reflecting finer customs classification of composite prepreg materials.

6.4 Aluminium and Titanium Alloys (1C202) — Note Moved

The technical note for 1C202 ("the term 'capable' refers to alloys that can achieve the specified parameters either before or after heat treatment") has been repositioned in the table layout, though the content is unchanged. The entry heading now reads "Aluminium alloys and titanium alloys" (铝合金和钛合金) to clarify that it covers both material types under one entry.

6.5 Nuclear Reactor Coolant Pump Description

The description of nuclear reactor primary coolant pumps has been slightly reworded. The 2025 edition reads: "pumps specially designed or manufactured for circulating the primary coolant of nuclear reactors as defined by Item 6." The 2026 edition clarifies: "pumps specially designed or manufactured for circulating the primary coolant of nuclear reactors as defined in Item 6." This is a minor grammatical clarification with no substantive change.

6.6 Fuel Element Manufacturing Equipment — Phrasing Correction

In the note on equipment for nuclear fuel element manufacturing, the 2025 edition reads: "equipment items belonging to fuel element manufacturing and 'specially designed or manufactured equipment'." The 2026 edition corrects this to: "equipment items belonging to fuel element manufacturing, and 'specially designed or manufactured equipment'." The addition of a comma and slight rephrasing resolves a grammatical ambiguity.

6.7 Gas Centrifuge UF_6 Corrosion-Resistant Materials Note

In the technical notes for gas centrifuge equipment (used in uranium enrichment), the list of UF_6-resistant materials has been updated. The 2025 edition lists: stainless steel, aluminium, aluminium alloys, nickel or nickel-based alloys with ≥60% nickel. The 2026 edition adds: "and fluorinated hydrocarbon polymers" (及氟化的烃聚合物). This aligns with the centrifuge piping

and valve materials section which already listed fluoropolymers. This is a significant technical clarification.

6.8 UAV Definition and Classification (9A012.d)

The conversion kit entry for unmanned aerial vehicles has been updated from referencing "items controlled under 9A012.a.1" to referencing "items controlled under 9A012.a" (i.e., the entire 9A012.a sub-category rather than just the first sub-item). This broadens the scope of what conversion kits are subject to control.

6.9 Drug Precursor Export Note — Word Removed

In the footnote at the end of the drug precursor (易制毒化学品) section, the 2025 edition states that the listed chemicals "only (仅)" require an export licence when exporting to Myanmar, Laos, Afghanistan, and other specific countries. The 2026 edition drops the word "only" (仅), making the note read that they require a licence "when exporting to" those countries. While the practical effect is similar, the removal of "only" slightly strengthens the emphasis on the licence requirement.

7. New Technology Entries (1E, 3E, 6E Categories)

The 2026 edition adds new technology control entries corresponding to the new material and item categories:

Control Code	Description
1E004 (new)	Technology and data for the production of 1C004 items (tungsten-nickel-iron/copper alloys), including process specifications, parameters, and machining programs
1E101.b (new)	Technology and data for the production of 1C117.b and 1C117.c items (molybdenum powder, solid tungsten, and related materials for missile components)
3E004 (new)	Technology and data for the production of 3C004 items (indium phosphide, trimethylindium, triethylindium)
6E001 (new)	Technology and data for the production of 6C001 items (bismuth-related items)
6E002 (new)	Technology and data for the production of 6C002 items (tellurium-related items)
3E201 (updated)	Technology for R&D, production, or use of 3A201–3A234 and 3D224–3D225 items — the entry reference has been reorganised in layout

8. Summary Table of All Substantive Changes

Change Type	Section	Detail	Significance
Preamble update	Preamble Note 4	Legal reference updated from Joint Announcement No. 51 (2024) to PRC Dual-Use Items Export Control List	High — aligns with new export control legal framework
New items (drug precursors)	Import & Export lists	4-Piperidone and 1-Boc-4-Piperidone added; further fentanyl precursor derivatives added to export list	High — addresses fentanyl precursor supply chains
New item (heavy alloy)	1C004	Tungsten-nickel alloys with specified density/strength characteristics added	High — kinetic energy penetrator / military applications
New items (missile materials)	1C117.b, 1C117.c	Molybdenum powder and solid tungsten for missile components added	High — missile/space dual-use
New section (samarium)	1C902	Samarium metal, samarium alloys (Sm-Co, Sm-Fe, Sm-Ni, Sm-Al, Sm-Mg), samarium targets added	Medium-High — rare earth magnets for defence
New section (indium)	3C004	Indium phosphide, trimethylindium, triethylindium added	Medium — III-V semiconductor materials
New section (bismuth/telluride)	6C001, 6C002	Bismuth metal/compounds and tellurium/cadmium telluride added	Medium — IR detectors, thermoelectrics
HS code expansion (tanks/vessels)	2B350.c multiple	Container HS code 7309000010 added alongside 7310100010	Low-Medium — improved customs classification
HS code update (UAVs)	9A012, 9A501	Extensive new HS code sets for unmanned aerial vehicles	Medium — reflects new UAV customs classification structure
HS code update (titanium alloy powder)	1C111.b.1.d	HS code changed from 8108202910 to 8108203010	Low — administrative correction
HS code expansion (beryllium)	1C230	HS code 8112190000 added	Low — administrative
Battery exemption (thionyl chloride)	Item 45, 1C450.c.14	Lithium-$SOCl_2$ batteries ≤1 kg exempted	Medium — reduces compliance burden on commercial battery sector

Change Type	Section	Detail	Significance
Description clarification (beryllium)	1C230	Three exemptions moved to main description text	Low — no substantive change
Description clarification (fibre composites)	1C210.c	Prepreg entry restructured with new HS codes	Low-Medium
Technical clarification (UF_6 materials)	Gas centrifuge notes	Fluoropolymers explicitly added to corrosion-resistant materials list	Medium — closes technical gap
New technology entries	1E004, 1E101.b, 3E004, 6E001, 6E002	Production technology entries for all new material categories	High — comprehensive technology transfer controls
Legal reference (laser/isotope)	AVLIS laser section	Reference updated from 《核两用品清单》 to 《两用物项出口管制清单》	Medium — consistency with new legal framework
Terminology correction (nuclear)	Nuclear import list	"concentration" (浓度) → "abundance" (丰度) for Pu-238	Low — technical accuracy
Scope clarification (UAV controls)	9A012.d	Conversion kits now refer to full 9A012.a category, not just 9A012.a.1	Medium — broader coverage
Wording change (drug precursor export note)	Export section footnote	Word "only" (仅) removed from export licence trigger description	Low — minor emphasis change

9. Notes on Methodology

This comparison was performed by extracting full text from both PDF files and conducting a line-by-line diff analysis. The catalogues are structured as multi-column tables which can cause some text reflow artefacts in PDF extraction; all substantive changes identified have been verified against the surrounding context. Where changes appear to be purely formatting or sequential numbering adjustments (due to item insertions), these are not reported. Only changes with substantive policy, legal, or technical significance are included in this report.

The 2025 catalogue contains 161 pages and the 2026 catalogue contains 168 pages. The overall item count in the 2026 edition is approximately 84 entries higher, primarily due to the addition of the new sections (1C004, 1C117 sub-items, 1C902, 3C004, 6C001, 6C002) and the expanded drug precursor list.